MILL SUPPLIES

MID-DECEMBER 1936

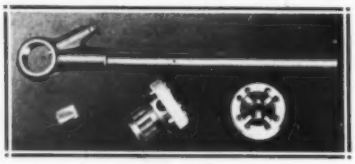
DIRECTORY EDITION

Where to Buy Industrial Supplies and Equipment

BEAVER PIPE TOOLS

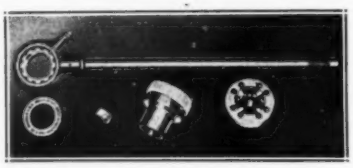
1937 Mills Ave. Warren, Ohio

The Quality Line — Since 1900



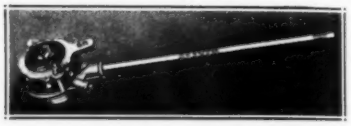
No. 2 Beaver Open-Ratchet ⅛ to ¾ Bolt Dies ¼ to 1-Inch

A low-priced competitive tool! Possesses many of the No. 3 advantages but lacks the important safety feature of the enclosed ratchet mechanism. Oil holes in die heads for easy oiling and chip clearance.



No. 3 Beaver Enclosed Ratchet ⅛ to 1-Inch—Bolt Dies ¼ to 1-Inch

Ratchet mechanism fully enclosed—no exposed teeth to become mutilated. Oil holes in die heads for easy oiling and chip clearance. Dies square in shape—no weak offsets to break. Right or left.



No. 6-R Beaverette Ratchet ¼ to ¾-Inch

The only "one-piece" ratchet threading ¼ to ¾-inch. Fully adjustable. No loose dies and no loose bushings. Right or left. Also made in No. 6 Beaverette Non-Ratchet Threader.

Beaver "3-Way" Threaders

Large oil holes between the dies for oiling and chip clearance. Dies square in shape—no weak offset to break. No. 33, ⅜ to ¾. No. 34, ½ to 1.

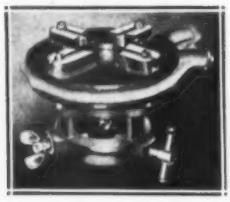
No. 17 Ratchet and Die Heads ⅛ to 2-Inch

Rugged patented construction. Oil holes for easy oiling and chip clearance, are bridged across the top to prevent spreading of die slots. Special long-throat die grinding—for easy starting and easy pulling.

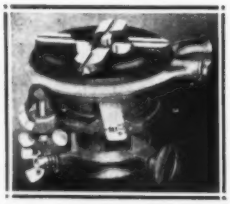
No. 60-R Ratchet ¼ to 1¼-Inch

Sturdy, simple construction. The ¼ to 1¼-inch range will appeal to plumbers, electricians, gas companies, sprinkler companies, etc. No loose bushings. Dies thread two sizes, are quickly changed—fully adjustable. Dies on top—easy to oil. Unbreakable Air-Furnace Malleable Iron.

No. 8 and 9 Series—1 to 2-Inch



No. 8 Series Plain or Ratchet uses grooved-bolt-and-washer centering device. No. 9 Series uses Universal chuck centering device. Straight line pull insures easier pulling; smoother operation; less repair expense. Interchangeable die segments.

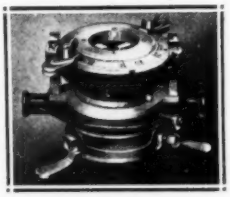


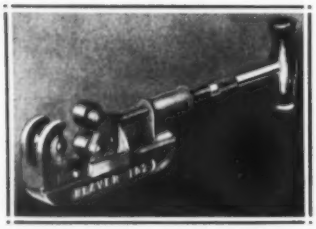
No. 12 and 13 Series Beavers 1 to 2-Inch

Fully self-contained and adjustable. No. 12 Series Plain or Ratchet uses grooved-bolt-and-washer centering device. No. 13 Series Plain or Ratchet uses the Universal chuck centering device. Straight line pull insures easier pulling; smoother operation; less repair expense.

No. 26 Beaver—A Heavy Duty "One-Piece" Tool

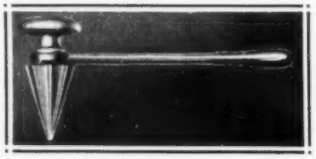
An extra heavy tool for extra hard usage. No loose dies or bushings—threads all sizes with one set of dies, fully adjustable. Drip threads, or close nipples, including 2-inch. Right or left hand. The "standby" for hard usage because it is so rugged.





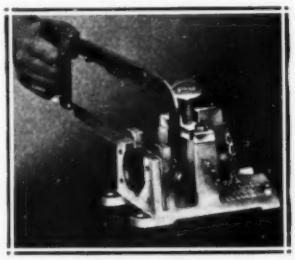
Beaver Square-Built Wheel Cutters

Patented construction. Unbreakable Air-Furnace Malleable Iron. No. 102 cuts ⅛ to 2-inch. No. 204 cuts 2½ to 4-inch. Wheels available also for cutting thin-wall tubing of cast iron.



Beaver Alloy Tool-Steel Reamers

No. 200 Swivel Type—⅛ to 2-inch. No. 300 Ratchet Type—⅝ to 3-inch. Perfectly balanced—easy to use. Reamer cone is a solid casting of highest grade of alloy tool steel—no inserted blades to come loose. Can be sharpened over and over again—and when worn out can be replaced at moderate cost.



Beaver Square-End Sawing Vises

Indispensable to every one who has to cut thin-wall tubing square. No. 2—¼ to 2-inch is made of aluminum with renewable hardened steel inserts in the saw guide. No. 4—½ to 4-inch—made of malleable iron. Quick-acting and simple to use. Will not crush or mar tubing.

Beaver Square-End Pipe Cutters

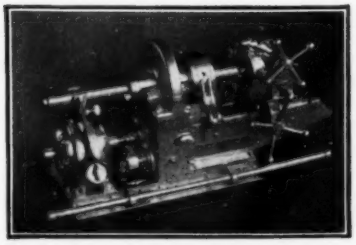
Cuts pipe square without burr. Cutting knives feed automatically. No. 1 cuts ⅛ to 1-inch. No. 5 cuts ½ to 2-inch.

Beaver Geared Threaders 2½ to 12-Inch

No. 41-E—2½ to 4-inch and No. 61-E 2½ to 6-inch have fully enclosed gears. An exclusive Beaver advantage that promotes smoother operation, longer life and less repair expense. No. 80 threads 4½ to 8-inch. No 90, 9 to 12-inch. All are fully adjustable. Used either by hand or with a Power Drive.

Beaver Power Drives

No. 46 Beaver Power Drive converts hand tools into power machines. With an extension drive shaft it will operate geared tools to cut and thread to 12-inch. Simple in construction—extremely sturdy and rugged. Can be used by the most unskilled workmen. Write for complete detailed bulletin.



Model A—Special Pipe Machine Wheel-and-Roller Cutoff

Cuts pipe ¼ to 2-inch—solid rods $\frac{1}{16}$ to 1 inch. Threads pipe ⅛ to 2-inch—bolts or rods ¼ to 2-inch. Cuts and threads 2½ to 12-inch—with geared tools.

Write for Complete General Catalog No. 37

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10% vs. 310%

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We have completed the tests on the abrasive belting left with us for test and find that it is not nearly as good as the product of the Minnesota Mining and Manufacturing Company.

Minnesota's product on our belt sander is producing an average of 912 units per belt. The abrasive material left with us produced only 222 units per belt.

On the automatic on which the belts are much shorter than on our other sander, Minnesota's product will put out 200 units per belt whereas the other product produced only 91 units per belt.

We understood from their representative that the other product is about ten per cent cheaper than the Minnesota product. On this test at least, the difference in quality far more than offsets the difference in price.

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for every type of sanding operation
in every type of industrial plant.

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DIRECTORY EDITION
Mid-December, 1936

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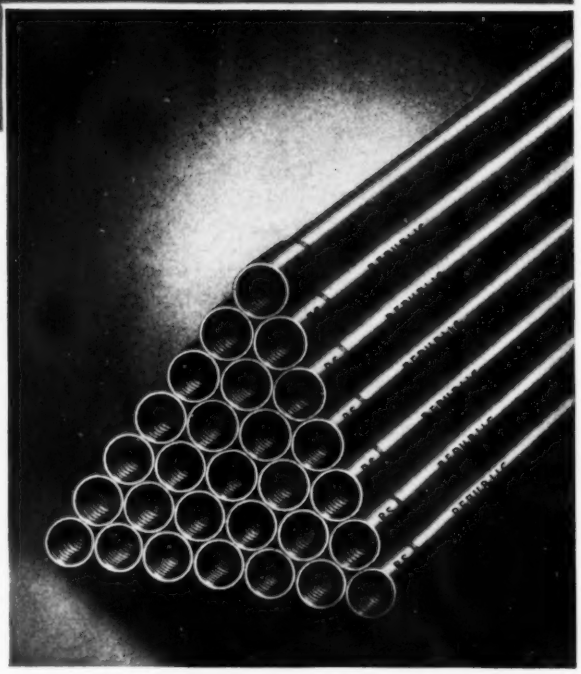
Republic Steel Corporation is today the world's largest manufacturer of alloy steels and the country's third largest producer of steel. In every industry, from the A's to the Z's, you'll find Republic Steel products serving with a high degree of satisfaction—proving through years of service the efficiency, dependability and economy

Republic PIPE



Republic produces three kinds of pipe made by any one of three processes—wrought steel, copper-bearing steel and rust-resisting Toncan Copper Molybdenum Iron in butt weld, lap weld or electric weld pipe. It may be had in either black or galvanized finish and in all standard sizes.

● Republic Pipe is easy to install. It is straight and true, with clean, sharp threads on pipe and in couplings. It cuts, threads and bends easily, and welds readily by any of the customary methods. Galvanized pipe is protected against corrosion by a tight, non-flaking, hot-dipped zinc coating.

Wrought Steel Pipe—Made from high quality, soft, weldable steel. An unusually well-made steel pipe for all ordinary types of service where corrosion is not severe, such as gas, water, air and steam lines.

Copper-Bearing Steel Pipe—Recommended for use where atmospheric or alternate wet and dry corrosive conditions are encountered. Contains the correct amount of copper alloyed with the steel to provide greater rust-resistance than obtainable in wrought steel pipe.

Toncan Copper Molybdenum Iron Pipe—Made of an alloy of refined open-hearth iron, copper and molybdenum. Possesses the greatest rust-resistance of any ferrous material in its price class. This long-lasting pipe costs slightly more than steel pipe, but wherever corrosion is a factor it will prove cheaper in the long run.

Full detailed information on any or all kinds of Republic Pipe will be sent upon request.

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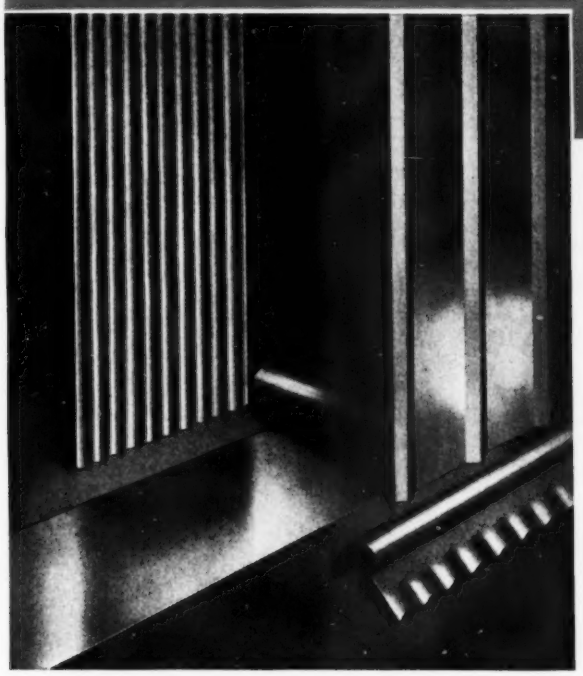
that can always be expected of any product bearing the name REPUBLIC. Proved products such as these sell faster, increase turnover and return greater profits to mill supply houses who stock them. If you would like to enjoy the benefits of handling proved Republic Steel products, write for full detailed information.



Republic SHEETS

There is a Republic Sheet for every degree of corrosion-resistance — plain carbon steel, copper-bearing steel, copper-bearing iron, Toncan Copper Molybdenum Iron and the famous Enduro Stainless Steels. With the exception of stainless steel, all are available black or galvanized and flat or corrugated.

● *Toncan Copper Molybdenum Iron Sheets*—These long-lasting sheets offer the greatest value in sheet metal today. Made of an alloy of refined open-hearth iron, copper and molybdenum, they are more rust-resistant than any other ferrous material in their price class. Toncan Iron service records of more than 28 years prove that there is no more economical metal for gutters, downspouts, roofing, siding and other sheet metal applications. Toncan Iron is easy to work—cut, bend, punch, rivet, solder, braze and weld. Cold working has no material effect on its high resistance to rust. It saves money in the long run.

Copper-Bearing Steel Sheets—Copper alloyed with steel provides sheets more resistant to atmospheric corrosion than ordinary steel.

Steel Sheets—Made of high grade carbon steel. For ordinary sheet metal service where corrosion is not a factor.

Roofing and Siding—Available in Roll Roofing; Standing Seam Roofing; Two-V, Three-V and Five-V Crimped Roofing; Two-Drain Channel Roofing; and plain or corrugated Ridge Roll. May also be had in various designs of siding.

Write for complete information and data on Republic Sheet Products.

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Republic Steel CORPORATION

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Greater value for your customers

MEANS INCREASED PROFITS FOR YOU

The unusually high uniform quality of Republic Steel products creates customer satisfaction, builds good-will and promotes increased sales.

Upson THREADED PRODUCTS

• To users of bolts, nuts, rivets, etc., in every branch of industry, the name UPSON has stood for dependable products for more than 73 years.

Upson products are uniformly accurate—true to size, with full heads, strong shanks and clean, sharp threads on bolts and in nuts. Every bolt is perfect, because Upson pays strict attention to all the little details that make perfection—the selection of the proper steel, closely-controlled heating and heat treating, accurate dies and trained inspectors whose entire responsibility is perfection of the finished product.

Upson products are clean and are packed in clean, attractive, plainly-labeled packages that help move them off store shelves.

If you would like to stock the same line of headed and threaded products that meet the strict requirements of the automotive, railroad and other exacting industries, write for further information.

MORE THAN 5000 ITEMS TO SELECT FROM

Upson maintains complete stocks of more than 5000 items for shipment on short notice—machine, carriage, stove, plow, battery, cultivator, elevator, step, tire and a host of special bolts. Large and small rivets. Washers. Hot pressed, cold pressed and semi-finished nuts. Lag screws. Turnbuckles. Wire rope clips. Any item, in fact, that is headed or threaded.

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Republic Steel CORPORATION

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MILL
SUPPLIES
MID-DECEMBER, 1936

TOASTING THE DISTRIBUTOR'S BUYER

• Buying again comes to the front with the Mid-December issue of MILL SUPPLIES, as it always does when the editors turn their attention to the imposing task of compiling the Directory Section.

All year long, in the other twelve issues, attention is focused on selling—planned selling. That is logical, as selling is the distributor's most important job today. And even in this issue we have not laid aside the subject. Much of the editorial material is presented to help the salesman, and the directory listings themselves are calculated to serve him as well as the company buyer.

But buying deserves a fair share of attention, as, without sound, constructive, planned purchasing, a program of planned selling would be as hopeless of successful accomplishment as would the campaign of an army without guns, supplies and ammunition.

Perhaps no one thing other than out and out inefficiency or dishonest practices will more quickly kill the regard of the industrial buyer for a distributor than the frequently repeated statement—"We haven't it in stock, but we can get it for you right away." The buyer patronizes the distributor because he expects to get most of the supplies he needs from the distributor's warehouse. The distributor can't be expected to have everything always, but he must be prepared to deliver all but the specials and rarely used items at any time, barring, of course, unusual circumstances. So the distributor's buyer has a mighty tough job anyway you look at it. He must always have enough of everything, without the danger of overloading on items which may become obsolete or the markets for which may suddenly peter out.

In attaining these ends in the rush of the present era, the buyer cannot safely depend solely on periodical physical inventories. Perpetual inventory systems are a great help, but they must be supplemented by constant study of specific markets for specific products, of changing trends both among manufacturers of the various products handled and among customers and prospective customers. Turnover of all the various lines carried must be carefully analyzed.

The more you consider buying in all its ramifications, the more you realize it is inseparable from selling. The two ride hand in hand. "Planned buying," a term employed by C. Ed. Gollwitzer in his article in this issue, becomes as significant as "planned selling"—and we find the unsung buyer, generally buried under a tremendous load of pressure detail, occupying a niche in the supply organization every bit as important as that of any other individual.

So MILL SUPPLIES takes pleasure in dedicating this Directory Edition to the mill supply house buyer. May his bosses and the organization's salesmen get the fullest benefits from its pages, but, above all, may his task be lightened somewhat by the assistance it offers him.

Two important men in the Hagerty organization—John H. Flora (left), secretary-treasurer, and Walter J. Heyd, purchasing agent (right, below).

The man responsible for efficient warehousing—Frank Lyons, hard working superintendent (left, below).

Home of Hagerty Brothers Company at 923-927 S. Washington St., Peoria, Ill. The property extends back a considerable distance, and, in the rear, is occupied by a higher building. The motor entrance, before which a Hagerty truck is standing, leads directly into the steel warehouse section of the "plant." The motor entrance to the pipe department is at the other end of the building.

Paul J. Hagerty, enterprising president and sales manager of the Hagerty Brothers Company (right).

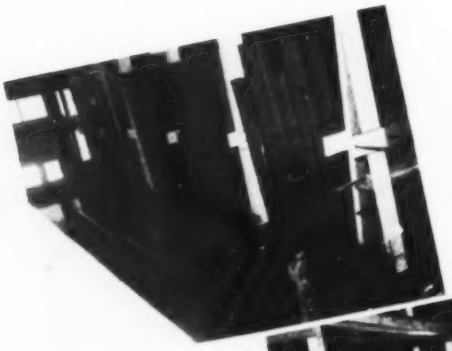
Here's the key to Hagerty's successful stock control—the perpetual inventory. Put to work a year ago, it has won its spurs because of the job it has done in keeping stocks at just the right level, day in and day out. The operator is Louis Mauer.

Keeping Stock

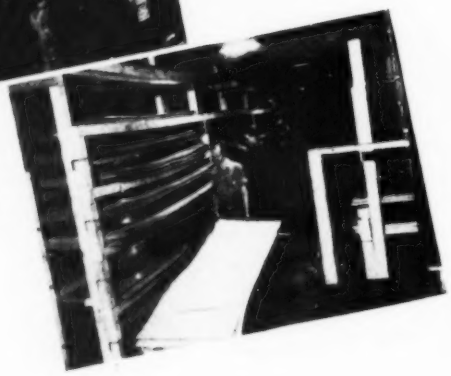
WHEN a house is engaged in steel warehousing as well as the general mill supply business, efficient stock keeping is a tremendous problem.

Not only must complete stocks of steel of all sizes and shapes, pipe and fittings, transmission equipment and a variety of supplies, equipment and tools be maintained, in order to adequately service industrial customers—but stock control, handling, convenience, proper care, all must be provided for.

The Hagerty Brothers Company, Peoria, Illinois, is such a house. It gets into the steel business on a big

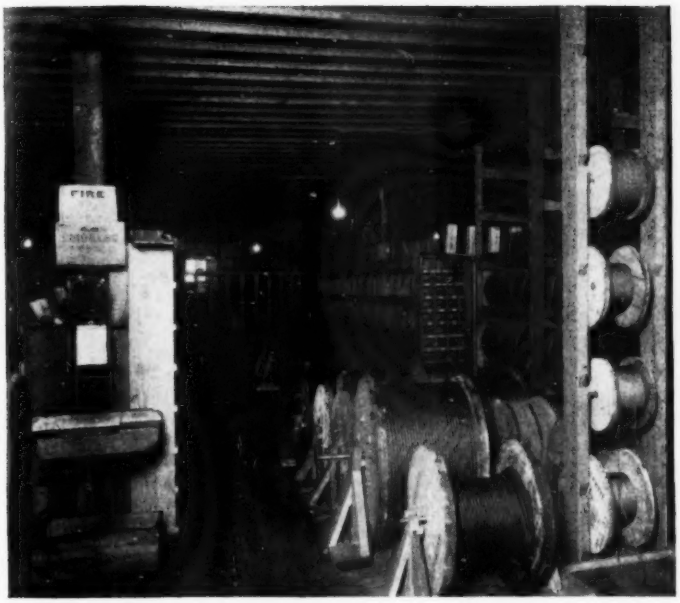


Now we get into steel. Part of Hagerty's bar stock neatly arranged on "A" frames. You'll note there is plenty of "headroom" and that trucks may be driven right in alongside the stock.

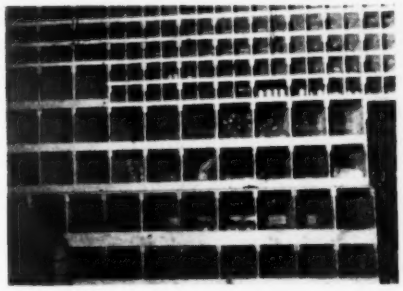


More steel! Here you see Hagerty warehouse men at work among the galvanized sheets.

Well marked and neatly stocked are these shelves containing an ample supply of various shapes and sizes of square cold rolled steel.

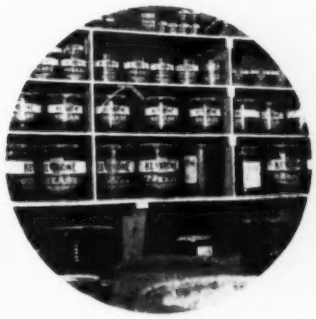


(Left) Another headliner with Hagerty's is power transmission equipment. Here, in the background, is a partial view of the transmission stock, with wire rope and cable in the foreground.



This new rack had just been completed when the Mill Supplies staff editor happened along, so it had not been completely stocked with the wide variety of pipe fittings which it now holds. This new rack features wire backs for bins, allowing ventilation and reducing danger of rust. The rack is in the "pipe section" of the Hagerty warehouse.

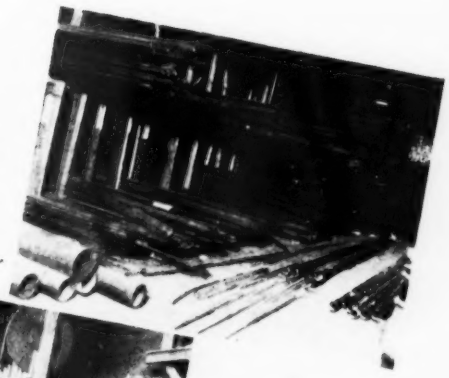
at Hagerty's



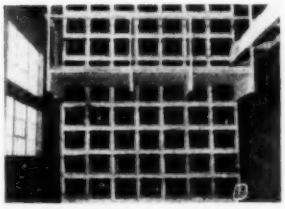
Grease is a big selling item for Hagerty Brothers. This picture provides a partial view of the extensive supply maintained at all times.

scale. It carries great stocks of pipe and fittings. Not only does it handle power transmission equipment; it maintains an efficient millwright department. Pumps are an important line, with engineers to specify and supervise installations. And so on down the line. Everything the company goes in for is a case of "whole hog or none." Haphazard jobs are simply not in the picture at Hagerty's.

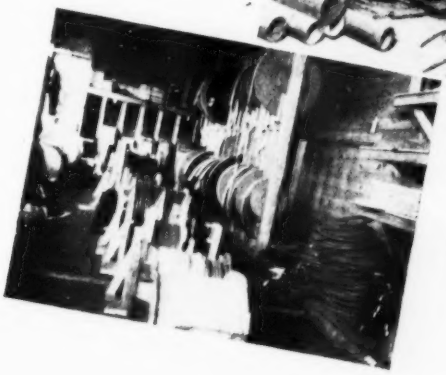
And the Hagerty Company is so well licking its warehousing problems that this picture feature is offered to give Mill Supplies readers some idea of how the job is being done. Let the pictures tell the story.



And here's the big pipe stock! Plenty of it, as you will observe, with a wide range of sizes. There's a "bay" at the front of this section where trucks may be backed in and loaded at truck floor level.



Directly adjacent to the truck entrance to the steel warehouse is this recently built rack, well filled with various steel shapes.



The picture at the left gives you a glimpse of Hagerty's mechanical rubber goods stock —belting, hose, and so forth. Note the handy racks and reels for belting.

Planned Buying in Arizona

Pratt-Gilbert Hardware Company, Phoenix, Finds Systematic Purchasing a Vital Factor in Successful Distribution.

By
C. ED. GOLLWITZER
Secretary and Manager,
Pratt-Gilbert Hardware Company,
Phoenix, Arizona

THE mill supply industry has, I believe, been fairly well impressed with the important differences between the selling conditions existing in this part of the country, where trails are long and population is scattered, and those of the thickly settled East and Middle West.

Distributors in these other areas know, for instance, that our salesmen don't ride paved highways and level roads day in and day out. They realize that mountains mean tougher motoring, heavy pulls, even danger at times for the man who is at the wheel. They have come to recognize the fact that there are times when we consider two calls a good day's work, and perhaps ask themselves about us, "How do they get away with it?"

But how about that other phase of mill supply distribution—that function which is fully as important as selling? I mean buying! When you consider the fact that we must allow two weeks time for rail shipments from our manufacturers in the East and Middle West—longer when goods come by water—you'll agree that we are a lot differently situated from the distributor in or near New York, Chicago or Cleveland, for instance, who can perhaps draw from some of his manufacturers' stocks in one of those close-by cities, or who at worst is only a day or two away from the plants of his sources of supply.

Yet we out here must also be in a position to serve our customers completely when they place their orders with us. And in most instances the supplies, equipment and tools they order are wanted without delay.

Furthermore, the wide area we cover and the variety of accounts on which we call not only make it necessary to carry adequate stocks of the supplies, equipment and tools that are common to all areas, but also of items that are distinctly peculiar to the needs of industries of a region such as this. We not only serve the industries of our territory, including the mines, smelters, concentrators and milling plants, but the state and governmental improvements—the gigantic as well as the small—including dams, highways, canals, and many others. As an example of the peculiarities of the requirements of our territory, we do a large business in rock bits. Now, I know that many distributors over the country handle rock bits, but this is a line of especial importance with us today.

Now, there is another angle to the question of purchasing out in this Phoenix area, as there is in all other areas, and that is the danger of over-stocking. It is bad enough to have to put off your customers on some of the supplies they need, but it's even worse to find yourself saddled with heavy inventories on lines just when the bottom drops out of the industries in

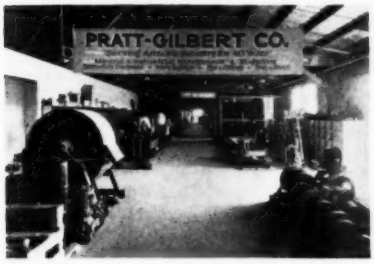
Away from heavy traffic, but still only a few blocks from the central business district of Phoenix, this modern home of Pratt-Gilbert has railway trackage and plenty of room for parking—and expansion.

which those lines have their greatest markets.

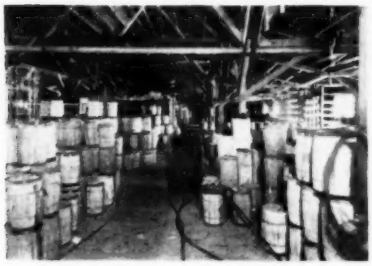
So it's a question of having enough of everything to supply your customers' needs in this far-off country, and, at the same time, not be overloaded with anything.

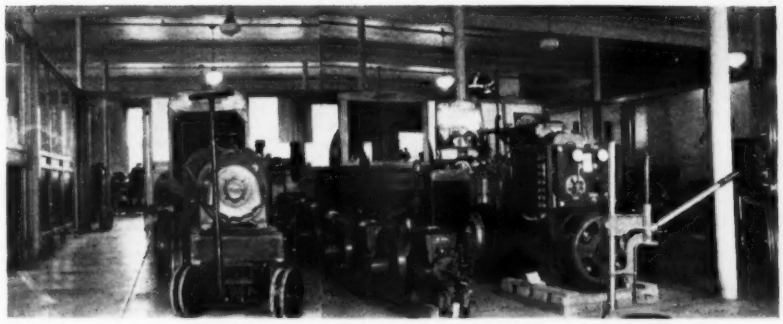
The answer with us is "planned buying" just as we operate under a program of "planned selling."

Back in the days of the depression, we made a thorough study of our buying practices. We found we were overloaded with this and that, and that we were handling many duplicate lines, which we believed to be a wasteful and useless practice. So we did a "weeding out" job that gave us the base on which to build our present program of purchasing.



Interior views (above and below) of the long, well kept Pratt-Gilbert warehouse, which give some idea of the comprehensive stocks of supplies, equipment and tools maintained at all times.





A glimpse of the Pratt-Gilbert display room, arranged as an integral part of the spacious office. Merchandise on display draws the attention of every visitor to the office.

Accurate sales records today are the unfailing guide to our buying. By means of a modern perpetual inventory system, we determine the quantity of any line that should be maintained in stock at all times, using the sales records on this line over six months periods as a guide. This data is supplemented at times, of course, by the information brought in by our salesmen of changing conditions which may cause us to alter our figures somewhat. These sales figures are analyzed, as you will realize, every six months in order that we will not be governed by factors that are obsolete.

All our purchases are made on a three months' basis, except, of course, occasional purchases of special equipment. Because of our great distance from sources of supply, we place our orders for stock replenishment at least thirty days prior to the date on which we expect our stock on any line to run out.

I am happy to state that through rigid stock control, in conformity with the above-mentioned plan, we find ourselves today in a strong position, adequately equipped to render complete service to our customers at all times—yet with a stock inventory that is from 25 to 30 per cent under our inventory of 1929. At the same time, we realize that with business conditions steadily becoming better, and the likelihood of greater time being required for our manufacturers to fill our orders, we may have to step up our inventory somewhat. But you can bet your bottom dollar that any increase we may make will be based on well considered sales potentials of our territory.

It cannot be considered boasting on my part if I make the comment that this program of planned buying is directly in line with Pratt-Gilbert's long established reputation for what might be called conservative progressivism—because, after all, I have been with the company only a comparatively few years.

But from the time, thirty-eight years ago, when Charles H. Pratt and Cyril S. Gilbert, present head of our company, found themselves out of a job because the firm by which they were employed became defunct—and took over a carload of wagons ordered by this company which stood unclaimed—until the present day, every move of consequence made by this organization has been well calculated and solidly based.

As soon as Messrs. Pratt and Gilbert had secured the money to purchase these wagons, they took over the simplest kind of quarters—a little adobe storehouse—and started to sell. As they sold wagons, they used the profits to buy more wagons, and then gradually a supply of other farm implements. Proceeding carefully, they eventually took over a better location. There was no rapid expansion, no high financing. Every step forward was paid for from company earnings.

But Pratt-Gilbert kept pace with the growth of Arizona. As new industries came and general construction increased, the company moved ahead with the times. Distributing connections for supplies and equipment were established one by one and a statewide market became the eventual goal, long since accomplished.

Years ago, the heads of the business figured a downtown location was unsuitable for a house that would have to carry thousands of items of supplies, with trackage and parking facilities a necessity, so the property on which the present modern "plant" stands was acquired. It was occupied in 1930—only a few blocks

from the business section and yet with all the important room facilities so vital to a supply house.

When readjustment hit the copper, cattle and cotton industries following the war, Pratt-Gilbert was so solidly established that it showed no signs of weakness. It felt the depression of 1921, of course, but it changed the entire character of its business from a farm machinery house to a general distributor of industrial equipment and supplies—without refinancing, without calling for outside financial aid and without reorganization. During the five years of reconstruction ending with 1930, we were able to take our place as a distributing agency serving all of the inland southwest, including every point in Arizona, and overlapping into New Mexico and Sonora, Mexico.

Today, we feel we are a thoroughly representative supply organization in a region with untold development prospects. We will keep our ear to the ground, moving with the trends of the area. But always we will move only after knowing just why and where we are going. While we will plan definitely our methods of selling the new lines we take on and the greater stocks of our present lines we may assume, we will first plan our buying, for planned buying is the rock of solidity.

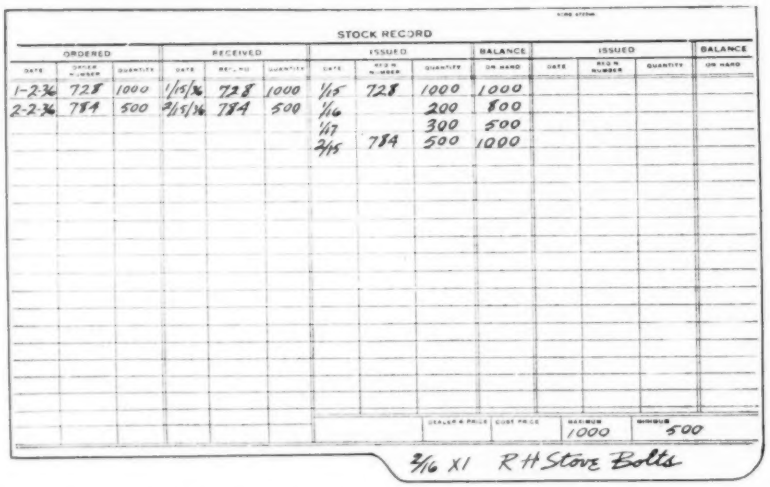
Editor's Note—The table below was prepared by, and is published through the courtesy of, the New York Power Transmission Council.

HOUSTON HOUSE MAINTAINS ACCURATE STOCK RECORDS

Here is the form employed by Wessendorf, Nelms and Company, Houston, Texas, in keeping a perpetual inventory record of its stocks.

In the lower right-hand corner are carried the name and size of the item recorded on the card, together with the maximum and minimum stock requirements on this item.

To show how the card is kept up, supposing that on January 2, 1936, 1,000 3/16 x 1 R H stove bolts were ordered. The record of the order, with the order number, is made in the "ordered" section of the card. Supposing, then, that the goods were received on January 15. The entry is made in the "received" section, the receipt number being the same as the order number. The same entry is then carried to the "issued" section, the requisition number being the same as the order and receipt numbers. Sales of 200 and 300 of these bolts were made on January 16 and 17, respectively, we will assume, so the entries are made in the "issued" column, the balance on hand being recorded after each sale. The stock being down to minimum, another order is placed on February 2 for 500 additional, and as these bolts are received the same method of entering is followed as before.



STOCK RECORD

ORDERED			RECEIVED			ISSUED			BALANCE	ISSUED			BALANCE
DATE	ORDER NUMBER	QUANTITY	DATE	REC'D NO.	QUANTITY	DATE	REQ'N NUMBER	QUANTITY	ON HAND	DATE	REQ'N NUMBER	QUANTITY	ON HAND
1-2-36	728	1000	1/15/36	728	1000	1/15	728	1000	1000				
2-2-36	784	500	2/15/36	784	500	1/16		200	800				
						1/17		300	500				
						2/15	784	500	1000				

DEALER'S PRICE | COST PRICE | MAXIMUM 1000 | MINIMUM 500

3/16 X1 R H Stove Bolts

The cards used by Wessendorf, Nelms are column-headed and ruled on both sides.

R. D. Morgan, purchasing agent of Wessendorf, Nelms and Company, says his organization has found its record system very accurate and well worth while.

SIZE AND WEIGHT CHANNELS TO USE FOR STEEL STRINGERS TO SUPPORT SHAFTING

DIAMETER SHAFT	SPACING OF BLDG. GIRDERS OR SUPPORT POINTS FOR STRINGERS						SIZE	WEIGHT PER FT.
	8′	10′	12′	14′	16′	Cap.		
15/16″ to 1 7/16″	3″	3″	3″	4″	4″	3″	3″	4.1 lbs.
1 11/16″ to 1 15/16″	3″	4″	4″	4″	5″	3″	4″	5.4 lbs.
2 3/16″ to 2 7/16″	4″	4″	5″	5″	5″	4″	5″	6.7 lbs.
2 11/16″ to 2 15/16″	4″	5″	5″	6″	6″	4″	6″	8.2 lbs.
3 3/16″ to 3 7/16″	5″	6″	6″	7″	7″	5″	7″	9.8 lbs.
3 11/16″ to 3 15/16″	6″	6″	7″	7″	8″	6″	8″	11.5 lbs.
4 3/16″ to 4 7/16″	6″	7″	8″	8″	9″	6″	9″	13.4 lbs.
4 11/16″ to 4 15/16″	7″	7″	8″	9″	9″	7″		

High Test Abrasive Products for Every Line of Industry

● NO MATTER WHAT abrasive problems confront your customers, Armour Sand Paper Works is in position to supply just the product needed. Over 41 years of uninterrupted manufacturing of abrasive products, has given Armour Sand Paper Works accurate, definite knowledge of what the words "quality" and "service" mean.

So we take great pride in offering you, Mr. Mill Supply Dealer, a complete line of tested and proven abrasive products for Boot and Shoe Manufacturers, Automobile Manufacturers, Leather and Tannery Trades, Woodworking and Furniture Manufacturers, Radio Manufacturers, Rubber and Tire Manufacturers, Machinery and Equipment Manufacturers, Building Trades, Glass, Pottery and Ceramic Manufacturers, Railroads, Railways and Steamship Companies, Casket Makers; and hundreds of other trades and manufacturers.

Your customers, no matter what industry they represent, will thank you for recommending and supplying Armour Abrasive Products. Write for prices, terms and details of our dealer franchise plan.

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MODERN METHODS SPEED UP JAMES' OPERATIONS

Well Arranged Building and Up-to-Date Handling Devices Facilitate Work of Chattanooga Distributor Organization

SPEED and convenience are watchwords in "handling operations" of the James Supply Company, Chattanooga, Tennessee. Hence, not only are the most modern "tools" employed to facilitate the filling and dispatch of orders and the receipt of goods, but the company's modern home is laid out to make the tasks of the workers easy and accurate as possible.

Good lighting is provided for the office force, store and warehouse men. There is plenty of "elbow" room around the stock bins, which are clearly marked and of a height to permit reaching the top shelves from the floor. The shipping platform is of truck floor height and is near to the receiving room and billing office. A railroad siding extends along the rear of the main building and a separate warehouse for roofing materials and heavy piping.

The accompanying photographs show some of the conveniences employed by James Supply to expedite the handling of supplies, equipment and tools.

It will be noted that the shipping room is logically located directly adjacent to the freight elevator shaft, on the first floor. The heaviest goods are kept in the basement, and here, as on the upper floors, fast moving items are stored nearest the elevator.

A notable time and labor saver is the chute which is used for dispatching goods from the upper floors to the shipping room. Note the safety fire door in the lower center of the chute picture. In case of fire it automatically drops.

This portable elevator simplifies the job of conveying heavy roofing material from railroad cars on the siding to the second floor of the warehouse.

A portable elevator at the rear of the second warehouse lifts heavy roofing materials from freight cars to the second floor.

Worthy of mention is the lot that separates the company's two buildings. Fenced in and heavily cindered, it provides ample space for parking trucks and automobiles. At night this space is illuminated so that work can go on if necessary and as a protection against prowlers.

Past experience had taught F. C. Bickers, president of the James Supply Company, the importance of efficient "plant layout" and modern materials handling devices, so when larger quarters were needed and he had to plan the present main building, he knew pretty well just "where he was going." Since the present quarters — and their modern equipment—have been in use, his careful planning has been amply rewarded through better and faster service to customers, greater economy in handling operations and much easier tasks for the company's staff.

And the little "touches" to the outside—well kept grass, a few attractive bushes—have not been wasted. They are appreciated by employes and noticed favorably by visitors.

Three aids to speedy and efficient handling of goods employed by the James Supply Company: Left—safety freight elevator with shipping room in close proximity; center-loading platform at truck floor height; right—chute for carrying goods on order for a fast ride from the top floor to the first floor shipping room.

NEW TOOLS FOR A NEW ERA

• Delta "Low-Cost" Tools Reduce Operating Costs

In factories, large and small, home workshops, schools—Delta motor-driven tools are the tools of the new era. In home shops, they offer the craftsman production accuracy, convenience, and quality at prices well within his reach. In industrial shops, they offer decreased production costs, increased flexibility and efficiency, at a fraction of the cost of the old heavy machines. Delta Tools were developed and built in "depression" times. Today, in tens of thousands of shops all over the world, they are the symbol of a new era in industry and craftsmanship.

• New 17-Inch Delta Drill Press

It is difficult to describe even briefly the chief features of this revolutionary new drill press. Five Speeds, Double Sealed "lubricated for life" Ball Bearings, Special Inverted Spline Spindle, Special Quill, Large Tilting Table, New Type Foot Power Feed—these are but a few of the scores of features that make this new Delta Drill Press a triumph in tool engineering. Yes—the price is low, unbelievably low for a tool of this size, weight, and quality.

• Complete Line of Slo-Speed Drill Presses

The Delta Triple Duty Drill Press line includes both High Speed and Slo-Speed machines, floor type and bench type, single and multi-spindle models, all priced so low and built so well that users continuously marvel at the value they offer. If you want to know the real story of the remarkable performance of Delta Drill presses, ask the men who use them.

• New Improved Line of Grinders

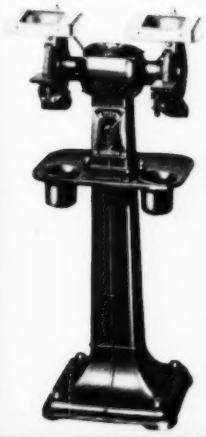
Not just another line of grinders, but new grinders advanced, revolutionary, offering many features never before offered in any grinders at any price. The new Twin-Lite Safety Shields and the accurate wheels balanced to 1/100th of inch-ounce are but two of the many improvements that make these grinders of interest to every shop manager.

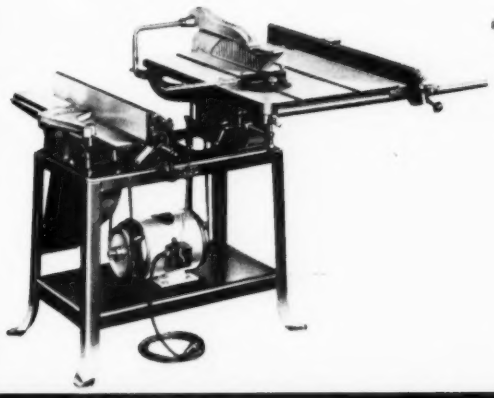
• Full Line of Woodworking Tools

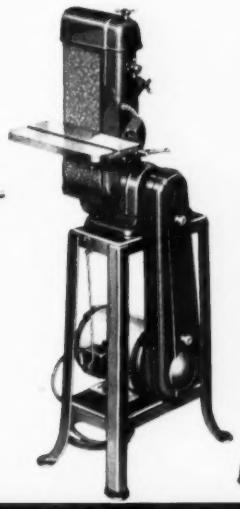
The complete Delta line includes Shapers, Sanders, Band Saws, Scroll Saws, Grinders, Circular Saws, Drill Presses, Mortisers, Routers, Lathes, and a full line of accessories and attachments. Write today for the name of the nearest Delta Dealer and for catalog describing the entire line of Delta Quality Tools. Address your inquiry to the industrial Tool Division.

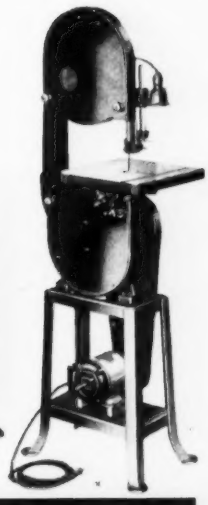
DELTA MFG. CO.

633 E. Vienna Ave. **Milwaukee, Wis.**









Feed and Speeds for Milling

Average Condition

DEPTH OF CUT IN INCHES.		WIDTH OF CUT IN INCHES															
		¼	½	¾	1	1¼	1½	2	2½	3	4	5	6	7	8	10	12
¼	Feed	4.5	4.5	4	4	4	3.5	3.5	3.5	3	3	3	2.5	2.5	2.5	2.25	2.25
	Speed	110	110	105	105	100	100	100	95	95	95	90	90	90	85	85	85
½	Feed	4.5	4	4	4	3.5	3.5	3.5	3	3	3	2.5	2.5	2.25	2.25	2	2
	Speed	105	105	100	100	95	95	95	90	90	90	85	85	85	80	80	80
¾	Feed	4	4	3.5	3.5	3.5	3	3	3	2.5	2.5	2.25	2.25	2	2	1.75	1.75
	Speed	100	100	95	95	90	90	90	85	85	85	80	80	80	75	75	75
1	Feed	4	3.5	3.5	3.5	3	3	3	2.5	2.5	2.25	2.25	2	2	1.75	1.5	
	Speed	95	95	90	90	85	85	85	80	80	80	75	75	75	70	70	
1¼	Feed	3.5	3.5	3.5	3	3	3	2.5	2.5	2.25	2	1.75	1.5	1.5	1.25		
	Speed	90	90	85	85	80	80	80	75	75	75	70	70	70	65		
1½	Feed	3.5	3.5	3	3	3	2.5	2.5	2.25	2	1.75	1.5	1.25	1			
	Speed	85	85	80	80	75	75	75	70	70	70	65	65	65			
2	Feed	3.5	3	3	3	2.5	2.5	2.25	2	1.75	1.5	1.25	1				
	Speed	80	80	75	75	70	70	70	65	65	65	60	60				
2½	Feed	3	3	2.5	2.5	2.25	2	1.75	1.5	1.25	1						
	Speed	80	75	75	70	70	65	65	65	60	60						
3	Feed	2.5	2.5	2.25	2	1.75	1.5	1.25	1								
	Speed	75	75	70	70	65	65	60	60								
4	Feed	2.5	2	1.75	1.5	1.25	1										
	Speed	75	70	70	65	65	60										
5	Feed	2	1.5	1.25	1												
	Speed	70	70	65	65												
6	Feed	1.75	1.5	1													
	Speed	70	65	65													

Feeds are given in Inches per Minute.
Speeds are given in Surface Feet per Minute.

To obtain the proper Feed and Speed for a given material, multiply both Feed and Speed figures given in table by the correction factor for that material.

Correction Factors

S.A.E. 1020	= 1.00
S.A.E. 1035—Annld.	= .80
Tool Steel—Annld.	= .60
Alloy Steels:	
Free Machining	= .80
Medium	= .65
Tough	= .50
Cast Steel	= .40
Cast Irons:	
Hard	= .70
Medium	= .95
Soft	= 1.20
Malleable Iron	= .80
Brass and Bronze:	
Free Machining	= 2.50
Medium	= 1.60
Hard	= .80
Monel Metal	= .70
Magnesium Alloys	= 5.00
Aluminum	= 2.00

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THE *Right* DRIVE FOR EVERY JOB

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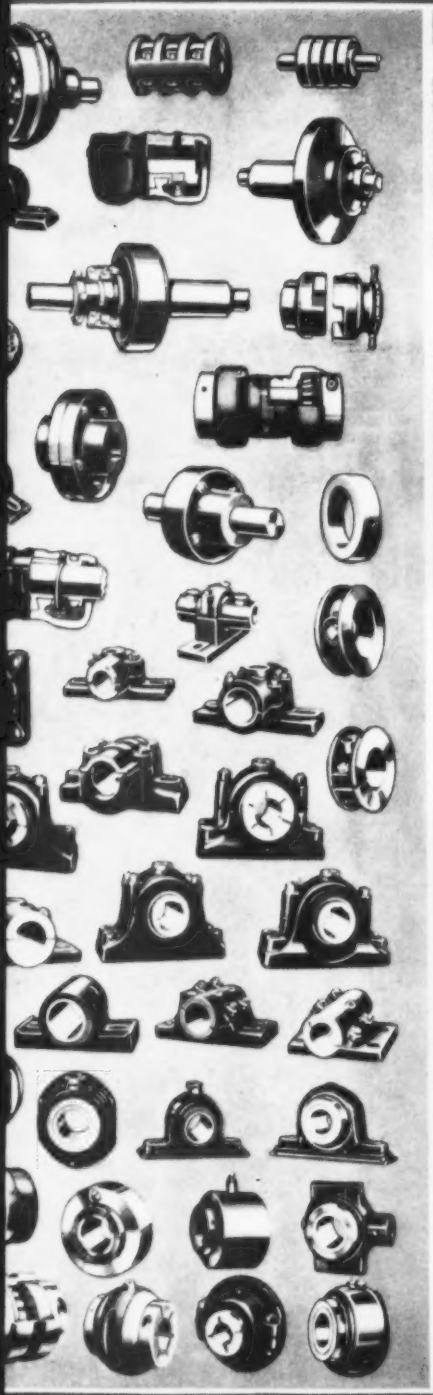
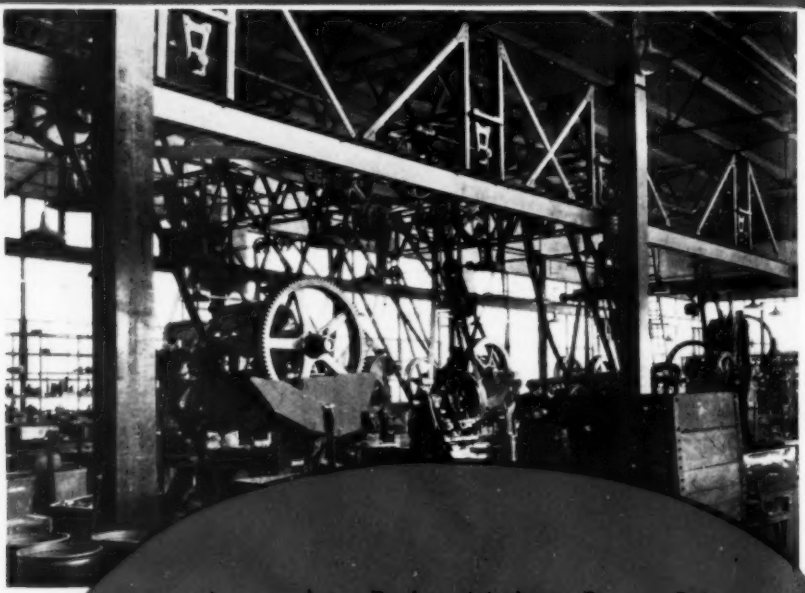
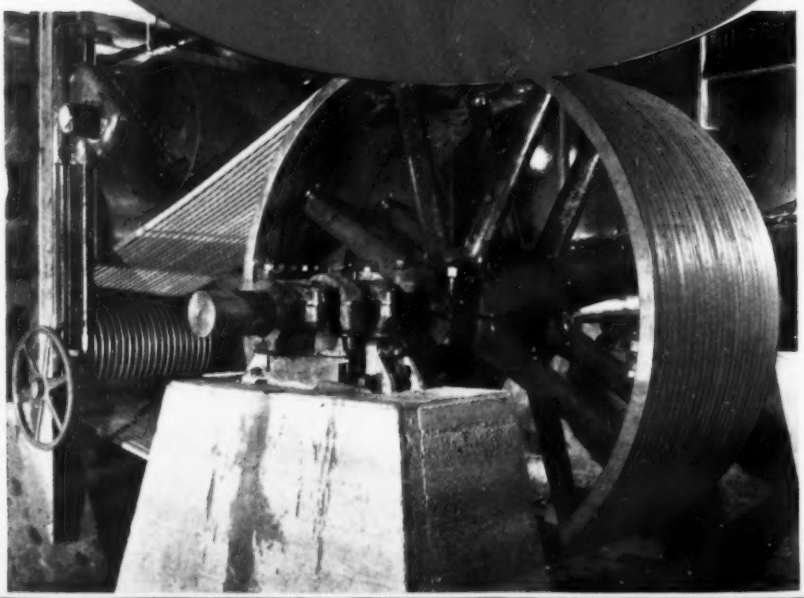
ODERN POWER TRAN





A complete Dodge Modern Group Drive installation in a Metal Stamping Plant.

A 400 H.P. Dodge "D-V" Drive from Lineshaft to Jackshaft in Box Board Mill.



EVERYTHING FOR THE
OF POWER BACKED BY

NLY COMPLETE LINE OF
NSMISSION EQUIPMENT

Selling Dodge for All Power Transmission Requirements Insures Satisfactory Performance and Builds Customer Confidence

One of our largest distributors tells the whole story when he says:—

"We represent the Dodge Manufacturing Corporation because we believe in giving the industries we serve maximum value for the money they spend. This value is not confined entirely to the merchandise itself, but we endeavor to add intelligent assistance in applying the right product to specific situations. To assist us in carrying out this policy, the Dodge organization has placed at our disposal the facilities necessary to enable us to give factory service on engineering as well as products."

We believe, and several hundred leading distributors endorse the idea, that you can best serve your industries by offering them COMPLETE Dodge service.

The DODGE LINE INCLUDES:

BALANCE-WHEELS

BASE PLATES
- PLAIN
- ADJUSTABLE

BEARINGS
- ANTI-FRICTION
- BABBITTED

BELT CLAMPS

BELT SHIFTERS

BELT GOVERNORS

BELT TIGHTENERS
- HORIZONTAL
- VERTICAL
- SPECIAL

CLUTCHES, FRICTION
- SOLID
- SPLIT
- DISC TYPE
- EXPANDING RING
- JAW

COLLARS
- IRON
- STEEL

CONVEYORS

COUNTERSHAFTS
- MACHINE
- OIL WELL

COUPLINGS
- COMPRESSION
- FLANGE
- FLEXIBLE
- CUT-OFF
- RIBBED
- UNIVERSAL

DRIVES
- FLAT BELT
- GROUP
- GEAR
- V-BELT
- ROPE
- VARIABLE SPEED

ELEVATORS

FLOOR STANDS

FLYWHEELS

GEARS
- CAST TOOTH
- CUT TOOTH

GIRDER CLAMPS

HANGERS
- DROP
- HEAD SHAFT
- BRACKET
- POST
- SLING

PILLOW BLOCKS
- BABBITTED
  - ADJUSTABLE
  - SPHERICAL
  - PLAIN
  - RING OILING
  - CAPILLARY OILING
  - COMMON FLAT BOXES
  - POST
  - ROLLING MILL
  - SOLID JOURNAL
  - POST
- ANTI-FRICTION
  - BALL BEARING
  - ROLLER BEARING

PULLEYS
- CONVEYOR
  - IRON
  - RUBBER LAGGED
  - STEEL
  - SLATTED

PULLEYS—Cont.
- FLANGED
  - IRON
  - STEEL
  - WOOD
- IRON
  - SOLID
  - SPLIT
  - HEAVY DUTY
  - IRON SPIDER WOOD RIM
- LOOSE
  - ROLLER BEARING
  - CAPILLARY-OILING
- MOTOR
  - STEEL
- WOOD
  - SPLIT
  - CRUSHER ROLL
  - TRACTOR
- IRON SPIDER WOOD RIM

QUILLS

SHAFTING

SHEAVES
- V-BELT
- ROPE

SPECIAL MACHINERY

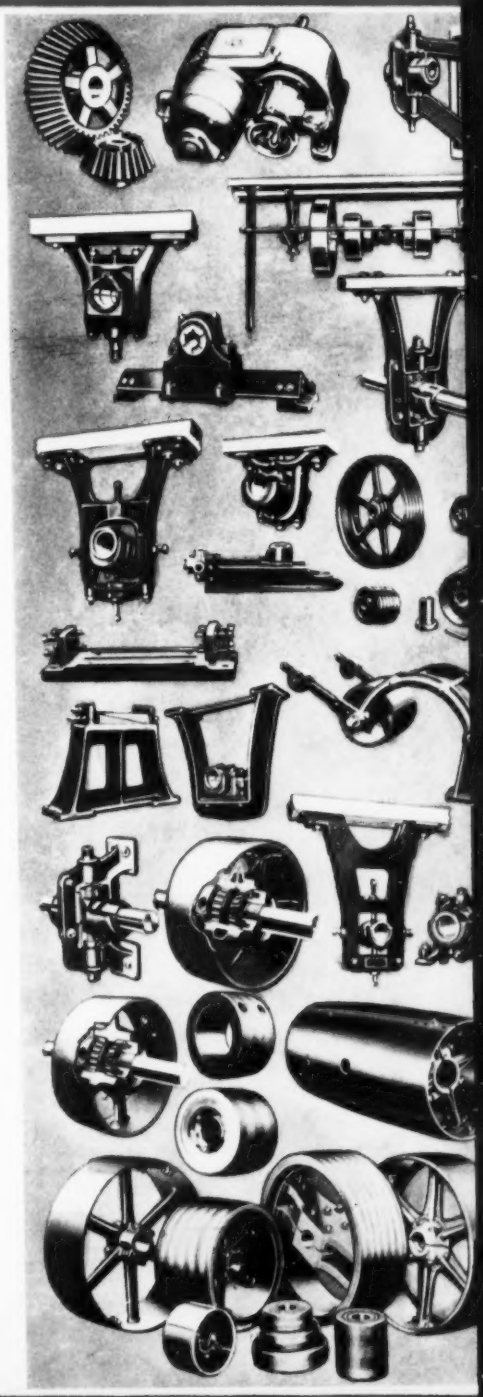
TAKE-UPS
- PROTECTED SCREW
- STEEL FRAME
- HEAVY SERVICE
- BALL BEARING
- ROLLER BEARING

UNITS
- POWER DRIVE
- ROLLER BEARING

VARIABLE SPEED TRANSMISSIONS

WALL BRACKETS

WALL FRAMES



Dodge Manufacturing Corporation
Mishawaka, Indiana

E MECHANICAL TRANSMISSION
YUNDIVIDED RESPONSIBILITY

Here's How Dodge Helps You Build Sales and Increase Profits

1 The "Power Round-Up" has travelled approximately 15,000 miles and has presented the complete Dodge sales and engineering story to about 10,000 buying executives in 50 important industrial centers. All meetings have been under the sponsorship and entirely in the interests of our distributors.

•

2 Complete and attractive bulletins and catalogues are furnished in generous quantities with distributor's own imprint covering all products included in the Dodge line. Every prospect in a territory has complete information and knows from whom he can obtain factory service quick.

•

3 In addition to catalogues and bulletins, the Sales Promotion Department carries on extensive and effective direct-by-mail advertising in the interests of all distributors. Personalized letters carrying distributor's own letterhead are used in most cases.

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4 Dodge advertising in the form of attention compelling two page spreads is carried in leading publications having wide industrial distribution. This advertising forms a valuable background for the selling efforts of Dodge distributors.

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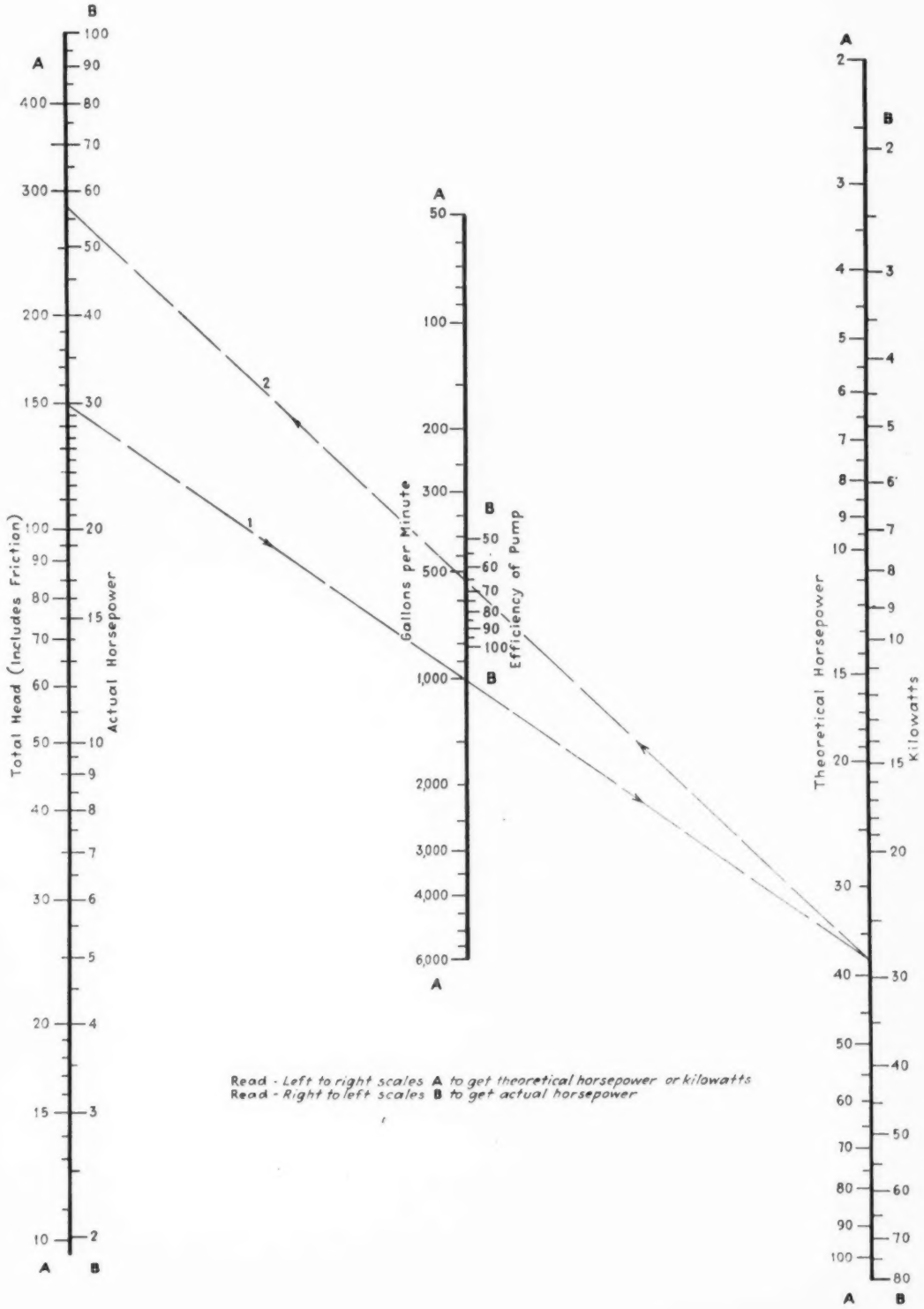
Power Required for Pumping Water



PIPE DATA

Nominal Pipe Size	Diameter Inches: External	Diameter Inches: Internal	Diameter Inches: Thickness	Threads: Per Inch	Threads: Length of Perfect	Threads: Number of Perfect	Circumference Inches: Outside	Circumference Inches: Inside	Transverse Area Square Inches: External	Transverse Area Square Inches: Internal	Length in Ft. Per Sq. Ft.: Metal	Length in Ft. Per Sq. Ft.: External Surface	Length in Ft. Per Sq. Ft.: Internal Surface	Length of Pipe Containing One Cu. Ft.	Contents in Gal. Per Lineal Foot	Weight Per Lin. Foot Plain Ends Lb.	Weight of Water Per Lin. Foot Lb.	Sq. Ft. of Heating Surface Per Lin. Foot	Moment of Inertia	Section Modulus	Radius of Gyration	Radius of Gyration Squared	List Price Per Lin. Foot	Nominal Pipe Size
STANDARD WEIGHT PIPE																								
1/8	0.405	0.269	0.068	27	0.264	5.12	1.272	0.845	0.129	0.057	0.072	9.431	14.199	2533.775	0.00296	0.24	0.0247	0.106	0.001064	0.005252	0.1215	0.01477	$0.05½	1/8
1/4	0.540	0.364	0.088	18	0.402	5.23	1.696	1.144	0.229	0.104	0.125	7.073	10.493	1383.789	0.00540	0.42	0.0450	0.141	0.003312	0.01227	0.1628	0.02651	0.06	1/4
3/8	0.675	0.493	0.091	18	0.408	5.34	2.121	1.549	0.358	0.191	0.167	5.658	7.748	754.360	0.00992	0.57	0.826	0.177	0.007291	0.02160	0.2090	0.04367	0.06	3/8
1/2	0.840	0.622	0.109	14	0.534	5.47	2.639	1.954	0.554	0.304	0.250	4.547	6.141	473.906	0.0158	0.85	0.132	0.220	0.01709	0.04069	0.2613	0.06828	0.08½	1/2
3/4	1.050	0.824	0.113	14	0.546	5.64	3.299	2.589	0.866	0.533	0.333	3.637	4.635	270.034	0.0276	1.13	0.230	0.275	0.03704	0.07055	0.3337	0.1113	0.11½	3/4
1	1.315	1.049	0.133	11½	0.683	5.85	4.131	3.296	1.358	0.864	0.494	2.904	3.641	166.618	0.0449	1.68	0.374	0.344	0.08734	0.1328	0.4205	0.1769	0.17	1
1¼	1.660	1.380	0.140	11½	0.707	6.13	5.215	4.335	2.164	1.495	0.669	2.301	2.768	96.275	0.0774	2.27	0.645	0.435	0.1947	0.2346	0.5397	0.2913	0.23	1¼
1½	1.900	1.610	0.145	11½	0.724	6.32	5.969	5.058	2.835	2.036	0.799	2.010	2.372	70.733	0.106	2.72	0.883	0.497	0.3099	0.3262	0.6226	0.3876	0.27½	1½
2	2.375	2.067	0.154	11½	0.757	6.70	7.461	6.494	4.430	3.355	1.075	1.608	1.847	42.913	0.174	3.65	1.450	0.622	0.6657	0.5606	0.7871	0.6196	0.37	2
2½	2.875	2.469	0.203	8	1.138	7.10	9.032	7.757	6.492	4.788	1.704	1.328	1.547	30.077	0.248	5.79	2.070	0.753	1.530	1.064	0.9474	0.8976	0.58½	2½
3	3.500	3.068	0.216	8	1.200	7.60	10.996	9.638	9.621	7.393	2.228	1.091	1.245	19.479	0.383	7.58	3.190	0.916	3.017	1.724	1.164	1.354	0.76½	3
3½	4.000	3.548	0.226	8	1.250	8.00	12.566	11.146	12.566	9.886	2.680	0.954	1.076	14.565	0.513	9.11	4.280	1.048	4.788	2.394	1.337	1.787	0.92	3½
4	4.500	4.026	0.237	8	1.300	8.40	14.137	12.648	15.904	12.730	3.174	0.848	0.948	11.312	0.660	10.79	5.500	1.179	7.233	3.214	1.510	2.279	1.09	4
*4½	5.000	4.506	0.247	8	1.350	8.80	15.708	14.156	19.635	15.947	3.688	0.763	0.847	9.030	0.826	12.54	6.880	1.310	10.44	4.177	1.683	2.832	1.27	*4½
5	5.563	5.047	0.258	8	1.406	9.25	17.477	15.856	24.306	20.006	4.300	0.686	0.756	7.198	1.04	14.62	8.660	1.458	15.16	5.451	1.878	3.526	1.48	5
6	6.625	6.065	0.280	8	1.513	10.10	20.813	19.054	34.472	28.891	5.581	0.576	0.629	4.984	1.50	18.97	12.500	1.736	28.14	8.496	2.245	5.042	1.92	6
*7	7.625	7.023	0.301	8	1.613	10.90	23.955	22.063	45.664	38.738	6.926	0.500	0.543	3.717	2.01	23.54	16.800	1.990	46.52	12.200	2.592	6.716	2.38	*7
8	8.625	7.981	0.322	8	1.713	11.70	27.096	25.073	58.426	50.027	8.399	0.443	0.478	2.878	2.60	28.55	21.700	2.262	72.49	16.810	2.938	8.630	2.88	8
*9	9.625	8.941	0.342	8	1.813	12.50	30.238	28.089	72.760	62.786	9.974	0.396	0.427	2.294	3.26	33.91	27.200	2.515	107.6	22.350	3.284	10.79	3.45	*9
10	10.750	10.020	0.365	8	1.925	13.40	33.772	31.479	90.763	78.855	11.908	0.355	0.381	1.826	4.10	40.48	34.200	2.817	160.7	29.90	3.674	13.50	4.12	10
*11	11.750	11.000	0.375	8	2.025	14.20	36.914	34.558	108.434	95.033	13.401	0.325	0.347	1.415	4.94	45.56	41.200	3.075	217.0	36.93	4.024	16.19	4.63	*11
12	12.750	12.000	0.375	8	2.125	15.00	40.055	37.699	127.676	113.097	14.579	0.299	0.318	1.273	5.87	49.56	48.900	3.344	279.3	43.82	4.377	19.16	5.07	12
EXTRA STRONG PIPE																								
1/8	0.405	0.215	0.095	27	0.264	5.12	1.272	0.675	0.129	0.036	0.093	9.431	17.766	3966.393	0.00187	0.31	0.01557	0.106	0.001216	0.006004	0.1146	0.01314	$0.12	1/8
1/4	0.540	0.302	0.119	18	0.402	5.23	1.696	0.949	0.229	0.072	0.157	7.073	12.648	2010.290	0.00374	0.54	0.0312	0.141	0.003766	0.01395	0.1547	0.02393	0.07½	1/4
3/8	0.675	0.423	0.126	18	0.408	5.34	2.121	1.329	0.358	0.141	0.217	5.658	9.030	1024.689	0.00732	0.74	0.0610	0.177	0.008619	0.02554	0.1991	0.03966	0.07½	3/8
1/2	0.840	0.546	0.147	14	0.534	5.47	2.639	1.715	0.554	0.234	0.320	4.547	6.995	615.017	0.01216	1.09	0.1012	0.220	0.02008	0.04780	0.2505	0.06273	0.11	1/2
3/4	1.050	0.742	0.154	14	0.546	5.64	3.299	2.331	0.866	0.433	0.433	3.637	5.147	333.016	0.0224	1.47	0.1855	0.275	0.04479	0.08531	0.3214	0.1033	0.15	3/4
1	1.315	0.957	0.179	11½	0.683	5.85	4.131	3.007	1.358	0.719	0.639	2.904	3.991	200.193	0.0374	2.17	0.312	0.344	0.1056	0.1606	0.4066	0.1653	0.22	1
1¼	1.660	1.278	0.191	11½	0.707	6.13	5.215	4.015	2.164	1.283	0.881	2.301	2.988	112.256	0.0666	3.00	0.555	0.435	0.2418	0.2913	0.5237	0.2743	0.30	1¼
1½	1.900	1.500	0.200	11½	0.724	6.32	5.969	4.712	2.835	1.767	1.068	2.010	2.546	81.487	0.092	3.63	0.766	0.497	0.3912	0.4118	0.6052	0.3663	0.36½	1½
2	2.375	1.939	0.218	11½	0.757	6.70	7.461	6.092	4.430	2.953	1.477	1.608	1.969	48.766	0.1532	5.02	1.277	0.622	0.8679	0.7309	0.7665	0.5875	0.50½	2
2½	2.875	2.323	0.276	8	1.138	7.10	9.032	7.298	6.492	4.238	2.254	1.328	1.644	33.976	0.2195	7.66	1.83	0.753	1.924	1.339	0.9241	0.8539	0.77	2½
3	3.500	2.900	0.300	8	1.200	7.60	10.996	9.111	9.621	6.605	3.016	1.091	1.317	21.801	0.342	10.25	2.85	0.916	3.894	2.225	1.136	1.291	1.03	3
3½	4.000	3.364	0.318	8	1.250	8.00	12.566	10.568	12.566	8.888	3.678	0.954	1.135	16.202	0.462	12.51	3.85	1.048	6.280	3.140	1.307	1.707	1.25	3½
4	4.500	3.826	0.337	8	1.300	8.40	14.137	12.020	15.904	11.497	4.407	0.848	0.998	12.525	0.596	14.98	4.97	1.179	9.610	4.271	1.477	2.181	1.50	4
*4½	5.000	4.290	0.355	8	1.350	8.80	15.708	13.477	19.635	14.455	5.180	0.763	0.890	9.962	0.750	17.61	6.25	1.310	14.05	5.621	1.647	2.712	1.80	*4½
5	5.563	4.813	0.375	8	1.406	9.25	17.477	15.120	24.306	18.194	6.112	0.686	0.793	7.915	0.947	20.78	7.90	1.458	20.67	7.431	1.839	3.382	2.08	5
6	6.625	5.761	0.432	8	1.513	10.10	20.813	18.099	34.472	26.067	8.405	0.576	0.663	5.524	1.352	28.57	11.28	1.736	40.49	12.22	2.195	4.817	2.86	6
*7	7.625	6.625	0.500	8	1.613	10.90	23.955	20.813	45.664	34.472	11.192	0.500	0.576	4.177	1.790	38.05	14.91	1.990	71.37	18.72	2.525	6.377	3.81	*7
8	8.625	7.625	0.500	8	1.713	11.70	27.096	23.955	58.426	45.663	12.763	0.443	0.500	3.154	2.37	43.39	19.75	2.262	105.7	24.51	2.878	8.283	4.34	8
*9	9.625	8.625	0.500	8	1.813	12.50	30.238	27.096	72.760	58.426	14.334	0.396	0.442	2.465	3.04	48.73	25.35	2.515	149.6	31.09	3.231	10.44	4.90	*9
10	10.750	9.750	0.500	8	1.925	13.40	33.772	30.631	90.763	74.662	16.101	0.355	0.391	1.929	3.88	54.74	32.30	2.817	212.0	39.43	3.628	13.16	5.48	10
*11	11.750	10.750	0.500	8	2.025	14.20	36.914	33.772	108.434	90.763	17.671	0.325	0.355	1.587	4.73	60.08	39.40	3.075	280.1	47.68	3.981	15.85	6.10	*11
12	12.750	11.750	0.500	8	2.125	15.00	40.055	36.914	127.676	108.434	19.242	0.299	0.325	1.328	5.64	65.42	47.00	3.344	361.5	56.71	4.335	18.79	6.55	12

*These sizes are listed as standard but are not commonly used.

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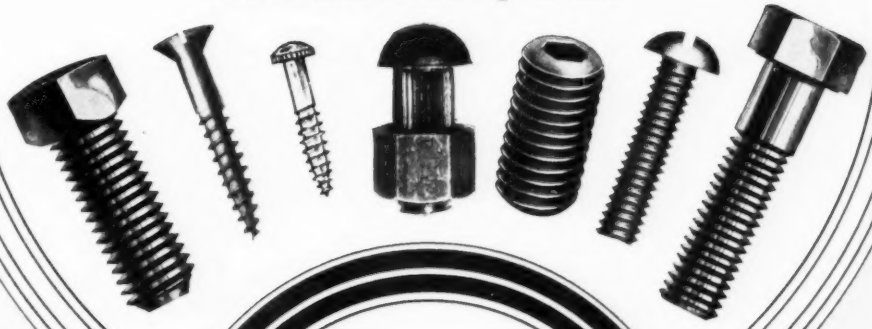
SET SCREWS
CAP SCREWS
WOOD SCREWS
BOLTS & NUTS
GULMITE SCREWS
DARDELET "RIVET BOLTS"
TRADE MARK REG.

★

ROCKFORD
SCREW PRODUCTS CO.
ROCKFORD, ILL.



Plant and Main Office
ROCKFORD, ILL.

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Warehouse
HIGH POINT, N. CAROLINA

Branch Offices:
Chicago, Ill.
Detroit, Mich.
Grand Rapids, Mich.
Indianapolis, Ind.
Jamestown, N. Y.
Los Angeles, Cal.
Minneapolis, Minn.

ROCKFORD SCREW PRODUCTS CO.

Branch Offices:
Nashville, Tenn.
New York, N. Y.
Seattle, Wash.
Sheboygan, Wis.
South Bend, Ind.
St. Louis, Mo.
Worthington, Ohio

SEAMLESS STEEL PIPE DATA

Nominal Pipe Size	Diameter Inches: External	Diameter Inches: Internal	Thickness, Inches	Circumference Inches: Outside	Circumference Inches: Inside	Transverse Area Square Inches: External	Transverse Area Square Inches: Internal	Transverse Area Square Inches: Metal	Length in Ft. Per Sq. Ft.: External Surface	Length in Ft. Per Sq. Ft.: Internal Surface	Length of Pipe Containing One Cu. Ft.	Contents in Gal. Per Lineal Foot	Weight Per Linea Foot, Plain Ends Lb.	Weight of Water Per Lineal Foot Lb.	Sq. Ft. of Heating Surface Per Lineal Foot	Moment of Inertia	Section Modulus	Radius of Gyration	Radius of Gyration Squared	Nominal Pipe Size
400 LB. STEAM PRESSURE																				
½	0.840	0.622	0.109	2.639	1.954	0.554	0.3039	0.2501	4.547	6.141	473.906	0.0158	0.850	0.132	0.220	0.01709	0.04069	0.2613	0.06828	½
¾	1.050	0.824	0.113	3.299	2.589	0.866	0.5333	0.3327	3.637	4.635	270.034	0.0276	1.130	0.230	0.275	0.03704	0.07055	0.3337	0.1113	¾
1	1.315	1.049	0.133	4.131	3.296	1.358	0.8639	0.494	2.904	3.641	166.618	0.0449	1.678	0.374	0.344	0.08734	0.1328	0.4205	0.1769	1
1¼	1.660	1.380	0.140	5.215	4.335	2.164	1.495	0.669	2.301	2.768	96.275	0.0774	2.272	0.645	0.435	0.1947	0.2346	0.5397	0.2913	1¼
1½	1.900	1.610	0.145	5.969	5.058	2.835	2.036	0.799	2.010	2.372	70.733	0.106	2.717	0.883	0.497	0.3099	0.3262	0.6226	0.3875	1½
2	2.375	2.041	0.167	7.461	6.411	4.430	3.272	1.158	1.608	1.872	44.000	0.170	3.938	1.418	0.622	0.710	0.598	0.786	0.6135	2
2½	2.875	2.469	0.203	9.032	7.757	6.492	4.788	1.704	1.328	1.547	30.077	0.248	5.793	2.070	0.753	1.530	1.064	0.9474	0.8976	2½
3	3.500	3.068	0.216	10.9951	9.638	9.621	7.393	2.228	1.091	1.245	19.479	0.383	7.575	3.190	0.916	3.017	1.724	1.164	1.354	3
3½	4.000	3.548	0.226	12.5661	11.146	12.566	9.888	2.678	0.954	1.076	14.565	0.513	9.109	4.280	1.048	4.788	2.394	1.337	1.787	3½
4	4.500	4.026	0.237	14.137	12.648	15.9041	12.73	3.174	0.848	0.948	11.312	0.660	10.79	5.500	1.179	7.233	3.214	1.510	2.279	4
5	5.563	5.047	0.258	17.477	15.856	24.306	20.01	4.296	0.686	0.756	7.198	1.04	14.62	8.660	1.458	15.16	5.451	1.878	3.26	5
6	6.625	6.049	0.288	20.813	19.003	34.472	28.74	5.732	0.576	0.632	5.010	1.491	19.49	12.42	1.736	28.84	8.71	2.243	5.034	6
8	8.625	7.938	0.343	27.096	24.938	58.426	49.49	8.936	0.443	0.482	2.910	2.561	30.40	21.38	2.262	76.80	17.8	2.932	8.60	8
10	10.75	9.960	0.395	33.772	31.290	90.763	77.91	12.853	0.355	0.384	1.850	4.04	43.68	33.61	2.817	172.5	32.1	3.665	13.42	10
12	12.75	11.75	0.500	40.055	36.913	127.676	108.4	19.276	0.299	0.334	1.328	5.63	65.42	46.80	3.344	361.5	56.7	4.33	18.76	12
14	14.00	13.00	0.500	43.982	40.841	153.938	132.7	21.238	0.272	0.294	1.085	6.88	72.09	57.30	3.66	483.8	69.0	4.77	22.75	14
16	16.00	14.94	0.5312	50.265	46.936	261.062	175.3	25.762	0.238	0.256	0.821	9.11	83.77	75.80	4.18	773.3	96.65	5.48	30.01	16
18	18.00	16.81	0.5931	56.549	52.810	254.469	222.0	32.469	0.212	0.227	0.649	11.54	110.4	96.20	4.72	1231.0	136.7	6.16	37.95	18
20	20.00	18.75	0.625	62.832	58.905	314.159	276.1	38.059	0.191	0.204	0.522	20.08	129.3	167.50	5.23	1787.0	178.7	6.85	46.95	20
24	24.00	22.50	0.750	75.398	70.686	452.389	397.6	54.789	0.159	0.170	0.362	20.62	186.2	172.00	6.27	3705.0	308.8	8.20	67.65	24
600 LB. STEAM PRESSURE																				
½	0.840	0.546	0.147	2.639	1.715	0.554	0.2341	0.3199	4.547	6.995	615.017	0.01216	1.087	0.1012	0.220	0.02008	0.04780	0.2505	0.0627	½
¾	1.050	0.742	0.154	3.299	2.331	0.866	0.4324	0.4336	3.637	5.147	333.016	0.02245	1.473	0.1855	0.275	0.04479	0.08531	0.3214	0.1033	¾
1	1.315	0.957	0.179	4.131	3.007	1.358	0.7193	0.6387	2.904	3.991	200.193	0.0374	2.171	0.312	0.344	0.1056	0.1606	0.4066	0.1653	1
1¼	1.660	1.278	0.191	5.215	4.015	2.164	1.283	0.881	2.301	2.988	112.256	0.0666	2.996	0.555	0.435	0.2418	0.2913	0.5237	0.2743	1¼
1½	1.900	1.500	0.200	5.969	4.712	2.835	1.767	1.068	2.010	2.546	81.487	0.0992	3.631	0.766	0.497	0.3912	0.4118	0.6082	0.3663	1½
2	2.375	2.000	0.1875	7.461	6.283	4.430	3.142	1.288	1.608	1.911	45.81	0.163	4.380	1.36	0.622	0.7764	0.653	0.777	0.603	2
2½	2.875	2.441	0.217	9.032	7.669	6.492	4.679	1.813	1.328	1.565	30.80	0.243	6.160	2.02	0.753	1.611	1.122	0.943	0.889	2½
3	3.500	3.018	0.241	10.996	9.481	9.621	7.153	2.4681	1.091	1.270	20.15	0.3715	8.388	3.09	0.916	3.294	1.880	1.155	1.336	3
3½	4.000	3.438	0.2812	12.566	10.800	12.566	9.283	3.2834	0.954	1.112	15.51	0.482	11.17	4.02	1.048	5.712	2.856	1.318	1.739	3½
4	4.500	3.938	0.2813	14.137	12.371	15.904	12.18	3.724	0.848	0.973	11.82	0.632	12.67	5.26	1.179	8.332	3.700	1.495	2.236	4
5	5.563	4.859	0.352	17.477	15.265	24.306	18.54	5.766	0.686	0.787	7.77	0.963	19.59	8.02	1.458	19.65	7.075	1.846	3.410	5
6	6.625	5.855	0.385	20.813	18.394	34.472	26.92	7.552	0.576	0.653	5.35	1.40	25.66	11.68	1.736	36.87	11.140	2.21	4.884	6
8	8.625	7.688	0.4688	27.096	24.152	58.426	46.42	12.006	0.443	0.498	3.10	2.41	40.83	20.10	2.262	100.2	23.100	2.89	8.355	8
10	10.75	9.688	0.5313	33.772	30.435	90.763	73.72	17.043	0.355	0.395	1.955	3.81	57.98	31.75	2.817	223.0	41.400	3.62	13.100	10
12	12.75	11.50	0.625	40.055	36.128	127.676	103.9	23.776	0.299	0.333	1.387	5.38	80.94	44.80	3.344	438.7	68.750	4.29	18.450	12
14	14.00	12.69	0.656	43.982	39.867	153.938	126.4	27.538	0.272	0.302	1.140	6.56	93.52	54.60	3.66	614.0	87.750	4.72	22.300	14
16	16.00	14.50	0.750	50.266	45.553	201.062	165.1	35.962	0.238	0.264	0.8725	8.59	122.2	71.50	4.18	1047.0	130.875	5.40	29.150	16
18	18.00	16.38	0.8125	56.549	51.459	254.469	210.7	43.769	0.212	0.234	0.6830	10.95	149.1	91.25	4.72	1623.0	180.333	6.09	37.100	18
20	20.00	18.19	0.9063	62.832	57.145	314.159	259.9	54.259	0.191	0.211	0.5540	13.50	184.8	112.4	5.23	2483.0	248.300	6.76	45.750	20
24	24.00	21.94	1.0313	75.398	68.926	452.384	378.1	74.284	0.159	0.174	0.3810	19.65	253.0	163.8	6.27	4917.0	409.000	8.14	66.200	24

A. S. T. M. specification A106-29.

MIDWEST WOLVERINE ABRASIVES OF DEPENDABLE QUALITY

MID-WEST ABRASIVE CO.

2189 Beaufait Avenue DETROIT, MICH.

Factories at Detroit, Mich. and Rochester, Pa.

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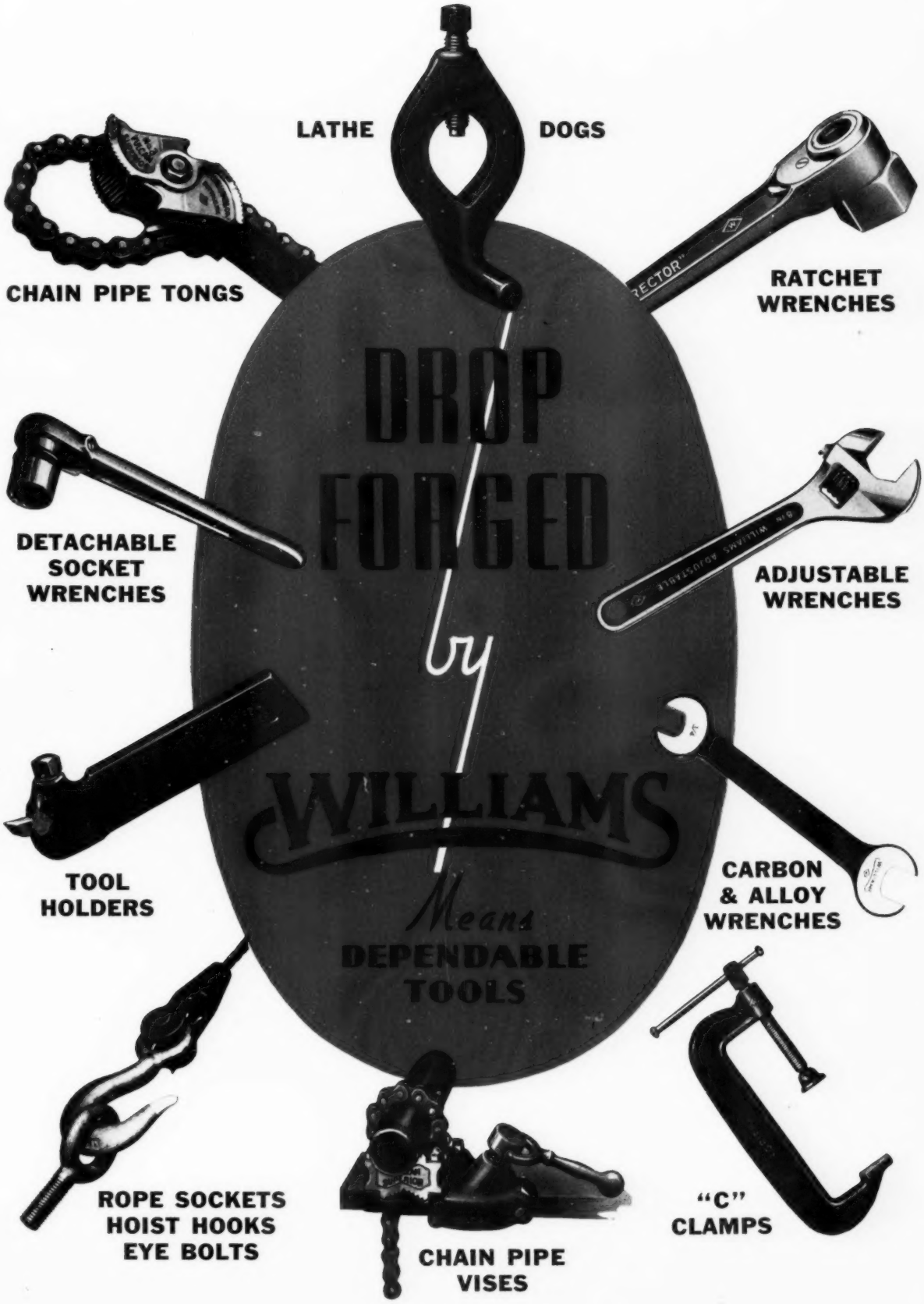
COMMERCIAL COPPER WIRES

PROPERTIES, NATIONAL ELECTRICAL CODE RATINGS AND REQUIRED CONDUIT SIZES

B. & S. Gage No.	Area in Circular Mils = (Diam. in Mils)²	Diameter in Mils = √Circ. Mils (Solid)	Resistance Ohms at 68 Deg. F.		Weight Bare Lb.		Typical Cable Stranding			Required Size of Conduit, Two-Wire and Three-Wire Systems									Distance Between Supports in Vertical Risers, Ft.	Rubber Insulation (A						Varnished-Cloth Insulation (B)						Other Insulation (C)		Circ. Mils or B. & S. Gage No.
							Strands			No. of Conductors in One Conduit												600 Volts				600 Volts						
																					One Braid		Two Braids		One Braid		Two Braids				
			Per 1,000 Ft.	Per Mile	Per 1,000 Ft.	Per Mile	No. of Strands	Diam. in Mils.	Outside Diam., Bare, In.	1	2	3	4	5	6	7	8	9		Allowable Carrying Capacity, Amperes	Volts Drop per 1,000 Ft. at Rated Current	Approx. Over-all Diam., In.	Approx. Weight per 1,000 Ft. Stranded, Insulated, Lb.	Approx. Over-all Diam., In.	Approx. Weight per 1,000 Ft. Stranded, Insulated, Lb.	Allowable Carrying Capacity, Amperes	Volts Drop per 1,000 Ft. at Rated Current	Approx. Over-all Diam., In.	Approx. Weight per 1,000 Ft. Stranded, Insulated, Lb.	Approx. Over-all Diam., In.	Approx. Weight per 1,000 Ft. Stranded, Insulated, Lb.	Allowable Carrying Capacity, Amperes	Volts Drop per 1,000 Ft. at Rated Current	
										Minimum Size of Conduit, Elec. Trade, Size, In.																							
.....	2,000,000	1,414	0.0052	0.0274	6,100	32,200	127	125.5	1.632	3	5	6	...	...	...	...	...	...	35	1,050	5.5	1.95	6,725	1.995	7,096	1,260	6.6	1.95	6,651	1.995	6,731	1,670	8.7	2,000,000
.....	1,900,000	1,378	0.0055	0.0290	5,796	30,600	127	122.3	1.590	3	5	6	...	...	...	...	...	...	35	1,010	5.6	1.91	6,414	1.952	6,760	1,210	6.7	1.91	6,326	1.952	6,404	1,610	8.9	1,900,000
.....	1,800,000	1,342	0.0058	0.0306	5,490	29,000	127	119.1	1.548	3	5	6	6	...	...	...	...	...	35	970	5.6	1.87	6,103	1.908	6,424	1,160	6.7	1.87	6,000	1.909	6,076	1,550	9.0	1,800,000
.....	1,700,000	1,304	0.0062	0.0327	5,186	27,400	91	136.7	1.504	3	5	5	6	...	...	...	...	...	35	930	5.8	1.83	5,792	1.864	6,088	1,120	6.9	1.83	5,674	1.864	5,749	1,490	9.2	1,700,000
.....	1,600,000	1,265	0.0065	0.0343	4,880	25,800	91	132.6	1.459	2½	5	5	6	...	...	...	...	...	35	890	5.8	1.79	5,481	1.820	5,752	1,070	7.0	1.80	5,348	1.820	5,421	1,430	9.3	1,600,000
.....	1,500,000	1,225	0.0070	0.0369	4,576	24,200	91	128.4	1.412	2½	4½	5	6	...	...	...	...	...	35	850	6.0	1.74	5,170	1.776	5,416	1,020	7.1	1.74	5,022	1.776	5,093	1,360	9.5	1,500,000
.....	1,400,000	1,183	0.0075	0.0396	4,270	22,500	91	124.0	1.364	2½	4½	5	6	...	...	...	...	...	35	810	6.1	1.68	4,832	1.716	5,065	970	7.3	1.60	4,697	1.716	4,761	1,290	9.7	1,400,000
.....	1,300,000	1,140	0.0084	0.0443	3,963	20,900	91	119.5	1.315	2½	4½	5	6	6	...	...	...	...	35	770	6.5	1.62	4,498	1.656	4,714	920	7.7	1.62	4,372	1.656	4,431	1,220	10.2	1,300,000
.....	1,200,000	1,095	0.0088	0.0464	3,660	19,300	91	114.8	1.263	2½	4½	4½	6	6	...	...	...	...	35	730	6.4	1.56	4,164	1.596	4,363	880	7.7	1.56	4,047	1.596	4,100	1,150	10.1	1,200,000
.....	1,100,000	1,048	0.0095	0.0501	3,356	17,700	91	109.9	1.209	2½	4	4½	6	6	...	...	...	...	35	690	6.6	1.50	3,834	1.536	4,012	830	7.9	1.50	3,722	1.536	3,769	1,080	10.3	1,100,000
.....	1,000,000	1,000	0.0105	0.0555	3,050	16,100	61	128.0	1.152	2	4	4	5	6	6	...	...	...	35	650	6.8	1.44	3,500	1.476	3,661	780	8.2	1.44	3,397	1.476	3,438	1,000	10.5	1,000,000
.....	950,000	974.7	0.0111	0.0586	2,898	15,300	61	124.8	1.122	2	4	4	5	6	6	6	...	...	35	625	6.9	1.41	3,312	1.447	3,495	750	8.3	1.41	3,220	1.447	3,269	960	10.7	950,000
.....	900,000	948.7	0.0117	0.0617	2,745	14,500	61	121.5	1.093	2	3½	4	4½	5	6	6	...	...	35	600	7.0	1.38	3,125	1.417	3,321	720	8.4	1.38	3,043	1.417	3,101	920	10.8	900,000
.....	850,000	922.0	0.0124	0.0655	2,593	13,700	61	118.0	1.062	2	3½	4	4½	5	6	6	...	...	35	575	7.1	1.35	2,972	1.386	3,150	690	8.6	1.35	2,880	1.386	2,940	880	10.9	850,000
.....	800,000	894.4	0.0131	0.0691	2,440	12,900	61	114.5	1.031	2	3½	4	4½	5	6	6	6	...	35	550	7.2	1.32	2,810	1.354	2,982	660	8.6	1.32	2,723	1.354	2,778	840	11.0	800,000
.....	750,000	866.0	0.0140	0.0739	2,288	12,100	61	110.9	0.997	2	3½	3½	4½	5	6	6	6	...	40	525	7.4	1.30	2,645	1.322	2,809	630	8.8	1.30	2,567	1.322	2,615	800	11.2	750,000
.....	700,000	836.7	0.0150	0.0792	2,135	11,300	61	107.1	0.964	2	3½	3½	4½	5	5	6	6	...	40	500	7.5	1.25	2,490	1.288	2,634	600	9.0	1.25	2,400	1.288	2,452	760	11.4	700,000
.....	650,000	806.2	0.0168	0.0886	1,983	10,500	61	103.2	0.929	2	3½	3½	4	4½	5	6	6	6	40	475	8.0	1.22	2,330	1.253	2,469	570	9.6	1.22	2,250	1.253	2,288	720	12.1	650,000
.....	600,000	774.6	0.0175	0.0923	1,830	9,660	61	99.2	0.892	2	3	3½	4	4½	5	6	6	6	40	450	7.9	1.18	2,170	1.216	2,296	540	9.5	1.18	2,096	1.216	2,125	680	11.9	600,000
.....	550,000	741.6	0.0191	0.101	1,678	8,860	61	95.0	0.854	1½	3	3½	4	4½	5	5	6	6	40	425	8.1	1.14	1,992	1.179	2,120	510	9.7	1.14	1,905	1.179	1,947	640	12.2	550,000
.....	500,000	707.1	0.0210	0.111	1,525	8,050	37	116.2	0.814	1½	3	3	3½	4	4½	5	5	6	50	400	8.4	1.08	1,815	1.107	1,914	480	10.1	1.08	1,725	1.107	1,770	600	12.6	500,000
.....	450,000	670.8	0.0234	0.124	1,373	7,250	37	110.3	0.772	1½	3	3	3½	4	4½	4½	5	6	50	365	8.5	1.04	1,645	1.065	1,734	435	10.2	1.04	1,563	1.065	1,607	550	12.9	450,000
.....	400,000	632.5	0.0263	0.139	1,220	6,440	37	103.9	0.727	1¼	3	3	3½	4	4	4½	5	5	50	325	8.5	1.00	1,470	1.021	1,564	390	10.3	1.00	1,400	1.021	1,442	500	13.2	400,000
.....	350,000	591.6	0.0300	0.158	1,068	5,640	37	97.2	0.680	1¼	2½	3	3½	3½	4	4½	4½	5	60	300	9.0	0.94	1,290	0.974	1,385	360	10.8	0.94	1,233	0.974	1,273	450	13.5	350,000
.....	300,000	547.7	0.0350	0.185	915	4,830	37	90.0	0.630	1¼	2½	3	3	3½	3½	4	4½	4½	60	275	9.6	0.90	1,135	0.923	1,210	330	11.6	0.90	1,070	0.923	1,108	400	14.0	300,000
.....	250,000	500.0	0.0420	0.222	762	4,020	37	82.1	0.575	1¼	2½	2½	3	3	3½	3½	4	4½	60	250	10.5	0.83	965	0.868	1,032	300	12.6	0.83	905	0.868	941	350	14.7	250,000
0000	211,600	460.0	0.0497	0.262	645	3,400	19	105.5	0.528	1¼	2	2½	2½	3	3	3½	3½	4	80	225	11.2	0.75	800	0.779	859	270	13.4	0.75	758	0.779	790	325	16.2	0000 B.& S.
000	167,800	409.6	0.0625	0.330	513	2,710	19	94.1	0.471	1	2	2	2½	3	3	3	3½	3½	80	175	10.9	0.70	650	0.721	702	210	13.1	0.70	612	0.721	641	275	17.2	000
00	133,100	364.8	0.0789	0.416	406	2,140	19	83.7	0.419	1	2	2	2½	2½	3	3	3	3½	80	150	11.8	0.64	530	0.670	577	180	14.2	0.64	497	0.670	524	225	17.8	00
0	105,500	324.9	0.0995	0.525	322	1,700	19	74.6	0.373	1	1½	2	2	2½	2½	3	3	3	100	125	12.4	0.60	435	0.624	475	150	14.9	0.60	405	0.624	431	200	19.9	0
1	83,690	289.3	0.1258	0.663	255	1,346	19	66.3	0.332	¾	1½	1½	2	2	2½	2½	3	3	100	100	12.6	0.56	350	0.583	394	120	15.1	0.56	331	0.583	355	150	18.9	1
2	66,370	257.6	0.1579	0.833	203	1,072	7	97.5	0.293	¾	1¼	1½	1½	2	2	2½	2½	2½	100	90	14.2	0.48	280	0.512	309	110	17.4	0.48	259	0.512	280	125	19.7	2
3	52,630	229.4	0.2004	1.059	160	845	7	86.6	0.260	¾	1¼	1¼	1½	2	2	2	2½	2½	100	80	16.0	0.45	235	0.480	256	95	19.0	0.45	212	0.480	232	100	20.0	3
4	41,740	204.3	0.2525	1.333	127	671	7	77.1	0.231	¾	1¼	1¼	1½	2	2	2	2	2½	100	70	17.7	0.42	195	0.452	214	85	21.5	0.42	170	0.452	189	90	22.7	4
5	33,100	181.9	0.3130	1.653	100	528	7	68.8	0.206	¾	1¼	1¼	1¼	1½	2	2	2	2	100	55	17.2	0.38	165	0.445	182	65	20.3	0.30	141	0.445	159	80	25.0	5
6	26,250	162.0	0.394	2.080	79.46	419.5	7	61.2	0.184	½	1	1¼	1¼	1½	1½	2	2	2	100	50	19.7	0.36	130	0.423	154	60	23.6	0.36	117	0.423	134	70	27.6	6
8	16,510	128.5	0.641	3.388	49.98	263.9	7	48.4	0.145	½	¾	1	1	1	1¼	1¼	1¼	1¼	100	35	22.4	0.29	80	0.330	95	40	25.6	0.29	75	0.330	83	50	32.0	8
10	10,380	101.9	1.010	5.333	31.43	166.0	7	38.6	0.116	½	¾	¾	1	1	1	1¼	1¼	1¼	100	25	25.3	0.26	56	0.299	70	30	30.3	0.26	52	0.299	60	35	35.6	10
12	6,530	80.8	1.601	8.453	19.77	104.4	7	30.6	0.092	½	½	½	¾	¾	¾	1	1	1¼	100	20	32.0	0.24	45	0.275	49	25	40.0	0.24	43	0.275	47	30	48.0	12
14	4,107	64.1	2.565	13.54	12.43	65.6	7	24.2	0.073	½	½	½	¾	¾	1	1	1	1	100	15	38.5	0.22	31	0.256	38	18	46.2	0.22	29	0.256	34	20	51.3	14
16	2,583	50.8	4.040	21.33	7.82	41.3	7	19.3	0.058	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	10	...	16
18	1,624	40.3	6.567	34.67	4.92	26.0	7	15.1	0.045	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	6	...	18

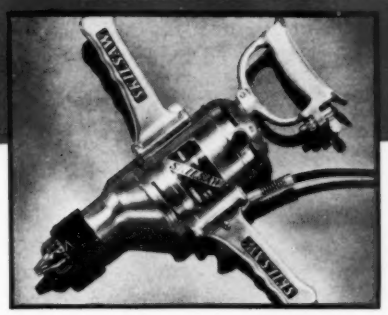

LATHE DOGS
CHAIN PIPE TONGS
RATCHET WRENCHES
DROP FORGED
by
WILLIAMS
Means
DEPENDABLE TOOLS
DETACHABLE SOCKET WRENCHES
ADJUSTABLE WRENCHES
TOOL HOLDERS
CARBON & ALLOY WRENCHES
ROPE SOCKETS
HOIST HOOKS
EYE BOLTS
CHAIN PIPE VISES
"C" CLAMPS

Gages Used in the United States

Gage No.	Washburn & Moen Steel Wire	American or Brown & Sharpe	Birmingham or Stubbs Iron Wire and Sheets	U. S. Standard for Sheet Iron and Steel	Stubbs Steel Wire	Imperial Wire Gage	Morse Twist Drill and Steel Wire	Wood and Machine Screws	Music Wire Gage	Standard Birmingham Sheet and Hoops	Trenton Iron Co.
0000000	.490			.500		.500				.6666	
000000	.4625			.469		.464				.6250	
00000	.4305			.438		.432				.5883	.450
0000	.3938	.460	.454	.406		.400				.5416	.400
000	.3625	.4096	.425	.375		.372		.032		.5000	.360
00	.3310	.3648	.380	.344		.348		.045	.0085	.4452	.330
0	.3065	.3249	.340	.313		.324		.058	.009	.3964	.305
1	.2830	.2893	.300	.281	.227	.300	.228	.071	.010	.3532	.285
2	.2625	.2576	.284	.266	.219	.276	.221	.084	.011	.3147	.265
3	.2437	.2294	.259	.250	.212	.252	.213	.097	.012	.2804	.245
4	.2253	.2043	.238	.234	.207	.232	.209	.110	.013	.2500	.225
5	.2070	.1819	.220	.219	.204	.212	.2055	.124	.014	.2225	.205
6	.1920	.1620	.203	.203	.201	.192	.2040	.137	.016	.1981	.190
7	.1770	.1443	.180	.177	.199	.176	.2010	.150	.018	.1764	.175
8	.1620	.1285	.165	.172	.197	.160	.1990	.163	.020	.1570	.160
9	.1483	.1144	.148	.156	.194	.144	.1960	.176	.022	.1398	.145
10	.1350	.1019	.134	.141	.191	.128	.1935	.189	.024	.1250	.130
11	.1205	.0907	.120	.125	.188	.116	.1910	.203	.026	.1113	.1175
12	.1055	.0809	.109	.109	.185	.104	.1890	.216	.028	.0991	.1050
13	.0915	.0720	.095	.094	.182	.092	.1850	.229	.030	.0882	.0928
14	.0800	.0641	.083	.078	.180	.080	.1820	.242	.032	.0785	.0800
15	.0720	.0571	.072	.070	.178	.072	.1800	.255	.034	.0699	.0700
16	.0625	.0508	.065	.0625	.175	.064	.1770	.268	.036	.0625	.0610
17	.0540	.0453	.058	.0563	.172	.056	.1730	.282	.038	.0556	.0525
18	.0475	.0403	.049	.0500	.168	.048	.1695	.295	.040	.0495	.0450
19	.0410	.0359	.042	.0438	.164	.040	.1660	.308	.042	.0440	.0400
20	.0348	.0320	.035	.0375	.161	.036	.1610	.321	.044	.0392	.0350
21	.0317	.0285	.032	.0344	.157	.032	.1590	.334	.046	.0349	.0310
22	.0286	.0254	.028	.0313	.155	.028	.1570	.347	.048	.0313	.0280
23	.0258	.0226	.025	.0281	.153	.024	.1540	.360	.051	.0278	.0250
24	.0230	.0201	.022	.0250	.151	.022	.1520	.374	.055	.0248	.0225
25	.0204	.0179	.020	.0219	.148	.020	.1495	.387	.059	.0220	.0200
26	.0181	.0159	.018	.0188	.146	.018	.1470	.400	.063	.0196	.0180
27	.0173	.0142	.016	.0172	.143	.0164	.1440	.413	.067	.0175	.0170
28	.0162	.0126	.014	.0156	.139	.0149	.1403	.426	.071	.0156	.0160
29	.0150	.0113	.013	.0141	.134	.0136	.1360	.439	.074	.0139	.0150
30	.0140	.0100	.012	.0125	.127	.0124	.1285	.453	.078	.0123	.0140
31	.0132	.0089	.010	.0109	.120	.0116	.1200	.466	.082	.0110	.0130
32	.0128	.0079	.009	.0101	.115	.0108	.1150	.479	.086	.0098	.0120
33	.0118	.0071	.008	.0094	.112	.0100	.1130	.492	.090	.0087	.0110
34	.0104	.0063	.007	.0086	.110	.0092	.1110	.505	.094	.0077	.0100
35	.0095	.0056	.005	.0078	.108	.0084	.1100	.518	.098	.0069	.0095
36	.0090	.0050	.004	.0070	.106	.0076	.1065	.532	.102	.0061	.0090
37	.0085	.0044		.0066	.103	.0068	.1040	.545	.106	.0054	.0085
38	.0080	.0040		.0063	.101	.0060	.1015	.558	.112	.0048	.0080
39	.0075	.0035			.099	.0052	.0995	.571	.118	.0043	.0075
40	.0070	.0031			.097	.0048	.0980	.584	.125	.0039	.0070
41	.0066				.095	.0044	.0960	.597		.0034	
42	.0062				.092	.0040	.0935	.611		.0031	
43	.0060				.088	.0036	.0890	.624		.0027	
44	.0058				.085	.0032	.0860	.637		.0024	
45	.0055				.081	.0028	.0820	.650		.0022	
46	.0052				.079	.0024	.0810	.663		.0019	
47	.0050				.077	.0020	.0785	.676		.0017	
48	.0048				.075	.0016	.0760	.690		.0015	
49	.0046				.072	.0012	.0730	.703		.0013	
50	.0044				.069	.0010	.0700	.716		.0012	
51							.0670				
52							.0635				
53							.0595				
54							.0550				
55							.0520				
56							.0465				
57							.0430				
58							.0420	Morse Gage, Cont.			
59							.0410				
60							.0400	67..0320	74..0210		
61							.0390	68..0310	75..0200		
62							.0380	69..0293	76..0180		
63							.0370	70..0280	77..0156		
64							.0360	71..0260	78..0160		
65							.0350	72..0250	79..0145		
66							.0330	73..0240	80..0135		

SKILSAW

PORTABLE ELECTRIC TOOLS



SKILSAW DRILLS

● HUSKIER—SMOOTHER—FINER. Motors are extra powerful, perfectly balanced, with field and armature windings baked in Bakelite. Highest quality ball bearings. Die-cast aluminum alloy bodies give lightness and superior strength. Gears are helical cut of costly heat-treated alloy steels. Spindle of chrome nickel steel. Improved type switches, mechanism fully enclosed. Finest 3-jaw geared chucks.

3/16 IN. "HIGH PRODUCTION" DRILL—Model 36

For auto body trim and airplane assembly. **Only 7½ in. long overall. Diam. 3 3/16 in.** Grip handle centered below body for easy handling. For constant production. Ball bearings on motor and spindle. Wt. 3¾ lbs. Free speed 3000 R.P.M. Specify voltage **$34.00**

¼ IN. "HIGH PRODUCTION" DRILL—Model 46

For boat builders, radio cabinet and furniture makers. **Length overall only 7½ in. Diam. 3 3/16 in.** Grip handle centered below motor housing. For constant production. Ball bearings on motor, spindle and gears. Wt. 4⅛ lbs. Free speed 2500 R.P.M. Specify voltage..... **$36.00**

¼ IN. SPECIAL DUTY DRILL—Model 40

Amply powered, well balanced. Drills up to ¼ in. holes in sheet metal and other light manufacturing materials. Ball bearings on motor and spindle. Wt. 5½ lbs. Length overall 12 in. Free speed 2000 R.P.M. Specify voltage..... **$28.50**

¼ IN. STANDARD DRILL—Model 42

Light in weight and powerful. For constant service work. Ball bearings on motor and spindle. Length overall 13½ in. Wt. 6 lbs. Free speed 2000 R.P.M. Specify voltage..... **$33.00**

¼ IN. HEAVY DUTY DRILL—Model 43

For auto body, radio, refrigerator, stove and other "heavy duty" service. Ball bearings on motor and spindle. Wt. 6¾ lbs. Length overall 13½ in. Free speed 2000 R.P.M. Specify voltage..... **$43.00**

5/16 IN. HEAVY DUTY DRILL—Model 53

For continuous drilling at maximum capacity. Light and compact. Ball bearings on motor and spindle. Wt. 7 lbs. Length overall 13¾ in. Free speed 1300 R.P.M. Specify voltage..... **$48.00**

⅜ IN. SPECIAL DRILL—Model 62

For the shop mechanic, plumber, electrician and for oil burner, heating and ventilating installation men. Ball bearings on motor and spindle. Wt. 7½ lbs. Length overall 14 in. Free speed 900 R.P.M. Specify voltage **$50.00**

⅜ IN. HEAVY DUTY DRILL—Model 63

For fast drilling in wood or metals, production and maintenance. Ball bearings on motor, spindle and gears. Wt., 11½ lbs. Length overall 15⅞ in. Free speed 1000 R.P.M. Specify voltage.. **$54.00**

½ IN. SPECIAL DRILL—Model 82

For all maintenance work. Recommended for driving SKILSAW hole saws. Ball bearings on motor, spindle and gears. Wt. 12¼ lbs. Length overall 16 in. Free speed 450 R.P.M. Specify voltage **$55.00**

½ IN. HEAVY DUTY DRILL—Model 83

For boiler shops, contractors, railroads, bridge builders, steel fabricators, mechanics, etc. Drives hole saws. Ball bearings on motor, spindle and gears. Wt. 13½ lbs. Length overall 16 in. Free speed 550 R.P.M. Specify voltage..... **$65.00**

(Continued in the next column)

SKILSAW SANDER

● Better, faster, cheaper for a smooth finish, without ripples or ridges. Plugs into any light socket. Used in thousands of millwork and woodworking plants, schools, factories, office buildings for maintenance and refinishing of furniture and blackboards. Sands, grinds and finishes wood, metal, stone and composition.

MODEL "A" SANDER

Has full 32 sq. in. sanding area. Powerful Universal motor, for D.C. or A.C. Belt speed 1500 surface feet per minute. 4½ in. wide belt can be changed in 10 seconds. Die-cast frame, strong and durable. Ball bearing construction throughout. Weighs only 18 lbs. Specify voltage..... **$88.00**

MODEL "B" SANDER

Same as Model "A" but with vacuum dust collecting system which prevents "loading" of belt, insuring faster sanding and longer belt life. Permits sanding and varnishing in same room. Separate motor. Weighs 23 lbs. Specify voltage..... **$125.00**

SKILSAW SANDER BELTS AVAILABLE IN GRADES FOR ALL SANDING PURPOSES

SKILSAW DRILLS—Continued

⅝ IN. STANDARD DRILL—Model 102

For maintenance, wood boring and light production work in metals. Drives hole saws. Ball bearings on motor, spindle and gears. Wt. 14¾ lbs. Length overall 16 in. Free speed 500 R.P.M. Specify voltage **$70.00**

⅝ IN. HEAVY DUTY DRILL—Model 103

For heavy construction and structural work; for machine repairing; driving cylinder grinders, hones and hole saws. Bearings on motor, spindle and gears. Wt. 25 lbs. Length overall 19¾ in. Free speed 450 R.P.M. Specify voltage..... **$78.00**

¾ IN. HEAVY DUTY DRILL—Model 123

For machinery erection, bridge construction, ship building; in maintenance shops and heavy machinery plants. Bearings on motor, spindle and gears. Wt. 26 lbs. Length overall 20¼ in. Free speed 375 R.P.M. Specify voltage..... **$90.00**

⅞ IN. HEAVY DUTY DRILL—Model 143

For toughest drilling and reaming jobs, in maintenance, production and construction. Ideal for heavy timber boring. Ball bearings on motor, spindle and gears. Fitted with No. 2 Morse taper socket. Wt. 24½ lbs. Length overall 20⅝ in. Free speed 375 R.P.M. Specify voltage..... **$100.00**

BENCH DRILL STANDS AVAILABLE FOR ALL SKILSAW DRILLS

DEFENDER DRILLS

. . . setting a new standard of quality in the low price field!

SKILSAW has built "extra value" into these low priced drills. Analyze their specifications, power and drilling speed, and you will find a quality of construction never before offered in the low price field.

½ in. capacity in steel. For field installation men and occasional drilling in jigs and dies. Wt. 4½ lbs. Length overall 12 in. Free speed 2000 R.P.M. Specify voltage ..... ONLY **$19.50**

½ in. capacity in steel. Drives hole saws. Only 1⅞ in. from center of spindle to outer edge of frame. Wt. 9¼ lbs. Only 11¼ in. long. Free speed 400 R.P.M. Specify voltage. ONLY **$35.00**

SKILSAW

THE ORIGINAL PORTABLE ELECTRIC HANDSAW

●Unequalled for features of construction, mechanical refinements and operating performance. **Cuts wood, metal, stone and compositions.** Die-cast frames are stronger, lighter and more durable. Powerful motors, all ball bearing construction. Each model comes equipped with combination blade, suitable cord, socket wrench, tube of lubricant and (except Model "W") a steel carrying case.

MODEL "W"—6 IN. BLADE

Cuts 1⅞ in. deep. Rips and cross cuts 1 in.; cross cuts 2 in. dressed. Light duty for job carpentry and factory shipping room. Wt. 8 lbs. Specify voltage **$45.00**

MODEL "J"—6 IN. BLADE

Cuts 1⅞ in. deep. Heavy duty for carpenter-builders and plant maintenance. Fine for scoring tile, concrete, limestone, etc., when equipped with abrasive disc. Wt. 11 lbs. Specify voltage.. **$72.00**

MODEL "77"—7 IN. BLADE

Cuts 2⅜ in. deep. Cross cuts 2 in. rough; bevel cuts 2 in. dressed at 45°. Ideal for factory production in wood and metal, and for maintenance. Wt. 15 lbs. Specify voltage **$95.00**

MODEL "E"—8 IN. BLADE

Cuts 2¾ in. deep. Maximum bevel cut at 45° is 2¾ in. For house framing and form work. Used for stone and non-metallic materials. Wt. 19 lbs. Specify voltage **$135.00**

MODEL "S"—9 IN. BLADE

Cuts 3 in. deep. Maximum bevel cut at 45° is 3 in. Scientifically engineered, and powerful for factory production on wood and metal and for maintenance. Wt. 22 lbs. Specify voltage. **$150.00**

MODEL "O"—10 IN. BLADE

Cuts 3¾ in. deep. Maximum bevel cut 3½ in. at 45°. Used for cutting stone, tile and for timber work in major construction. Wt. 26 lbs. Specify voltage..... **$165.00**

MODEL "R"—12 IN. BLADE

Cuts 4¾ in. deep. Maximum bevel cut 4 in. at 45°. The most powerful electric handsaw made! Unequalled for heavy construction work, bridge work, mines, etc. Wt. 30 lbs. Specify voltage **$195.00**

ALSO A COMPLETE LINE OF SKILSAW BLADES AND ABRASIVE DISCS

SKILSAW TOOLS ARE SOLD ONLY BY RECOGNIZED DISTRIBUTORS

SKILSAW INC 3330 ELSTON AVENUE, CHICAGO

Hardening Tools

FUNDAMENTAL HARDENING RULES

HEATING is to be done gradually and penetratingly, until the whole section of the part of the tool to be hardened has reached the right hardening temperature of the particular steel used. The tool should be kept at the hardening temperature only long enough to permit thorough heating.

The tool should then be hardened in accordance to its requirements more or less vigorously by quenching in a suitable hardening medium. Temper can be drawn if required.

FREQUENT FAULTS IN HARDENING

Fault in Hardening	Appearance of the Tool Resulting from the Fault	Appearance of Fracture	Possible Means of Correcting the Faults of Hardening
The tool has been heated insufficiently, i.e., has not been heated at the correct hardening temperature	Has not been hardened or is insufficiently hard. Has retained its scale wholely or in part. Can be filed	Has more or less the appearance of unhardened steel	Hardening is to be repeated at a higher temperature
The tool has been heated to above the correct hardening temperature, i.e., overheated	Sufficient hardness; normal amount of scale; cannot be filed. The tool may crack easily during hardening owing to insufficient toughness. Breaks away during use	Varying from fine to coarse grain, in some cases glittering; occasionally stony appearance	Should the overheating be only slight, hardening can be repeated at a lower, i.e., the right, temperature. Should the heating, however, be greater, the steel should be annealed beforehand and then rehardened. If, as with chisels, the form of the tool will permit it, the steel should be reforged
The tool has been very severely overheated, i.e., burnt	Sufficient hardness; normal amount of scale; cannot be filed. Owing to lack of toughness, the tool cracks and breaks out easily during use	Coarse grain to coarse crystalline, strong white sparkle	A burnt tool cannot be rendered serviceable
The tool has not been sufficiently protected against decarbonization of the surface during heating	Has apparently not taken sufficient hardness; imperfect scaling; surface can be filed; beneath soft decarbonized surface proper hardness is often found	A wider or narrower edging, depending on the intensity of the decarbonization, will show on the outside. This edging will be very sparkling and resemble cast iron. Below it the grain will be in accordance with hardening	Grind away the decarbonized surface. If this is not possible and the decarbonization is not deep, the tool may be annealed in a case-hardening material (i.e., carbonized leather) and then rehardened. Should the decarbonization be deep, anneal and reforge the piece and then harden afresh
The tool has been heated too quickly and irregularly	Unequal hardness (the edges are generally sufficiently hard), imperfect scaling. Can be filed in places. The tool cracks easily, corners or teeth break out with shell fractures, large pieces burst	Unequal appearance. Partly unhardened, partly properly hardened. Often overheated grain on edges and thin portions	Anneal and reharden correctly
The part of the tool to be hardened has not been cooled suddenly enough, either because the hardening medium has become too warm or because a wall of steam has been allowed to form between the tool and the hardening medium	Insufficient hardness, especially with large pieces. Edges are generally hard. Surfaces, particularly large ones, can be filed, however, even though they scale properly	Only edges and thin portion properly hardened, otherwise—particularly on the surface—unhardened or not quite enough grain	The hardening is to be repeated, care being used that the cooling takes place rapidly enough, either by the use of a spray or blast pipe or by moving the piece about in the hardening medium. Complicated pieces should be annealed beforehand
The tool has been hardened in a hardening medium (e.g. oil, air, etc.) which was too mild for the quality of the steel, or for the particular purpose for which the tool is required	Insufficient hardness; edges and thin sections sometimes hard; larger sections and surfaces soft; generally insufficient scaling; can be filed in parts	Resembles at the soft parts more or less the fracture of the unhardened steel	Hardening is to be repeated in a stronger hardening medium
The tool has been hardened in a hardening medium (e.g. brine) which was too strong for the quality of the steel or for the particular purpose for which the tool is required	Proper hardness, normal scaling, cannot be filed; hardening cracks appear; great distortion; tool is brittle	Hardening grain is good; very deep; sometimes shows complete hardening	Relieve the brittleness by drawing the temper

The Natural Fracture of the Tool Steel (unannealed, unhardened) should show an even gray, dull grain, which is coarse with soft steels and finer with hard steels. Alloy steels show a fracture in accordance with the alloy used and have a more or less velvety appearance and a coloring of their own.

The Fracture of Annealed Tool Steel—Through proper annealing the texture of the steel becomes brighter, the fracture is more regular, the grain rather fine. The brightness, however, is easily distinguishable from the sparkling brightness of overheated steel.

The Fracture of Badly Annealed Tool Steel—Insufficiently annealed steel has a fracture more or less like the natural fracture. Over-annealed steel has a coarser crystalling and very brilliant fracture. Should air have penetrated to the steel during the process of annealing, the fracture will show, on the surface, a decarbonized edging resembling cast iron.

The Fracture of Hardened Tool Steel—The fracture of the hardened layer of a properly treated steel will have the finest grain that it is possible to attain with the particular quality of steel used. This grain will be very fine, velvety, and dull. The differences of grain between a soft and hard steel will almost entirely disappear at the hardened layer. The fracture of alloyed steels will have a particularly fine dull texture. Depth of the hardened layer depends on the chemical composition of the steel and, in some qualities also, on the manner of annealing.

The Right Hardening Temperature—of a steel is the lowest temperature at which the steel will take a good hardness. At this temperature the steel will have the best combination of hardness and toughness. If treated at a higher temperature, it will simply lose in toughness without gaining in hardness. This correct hardening temperature is not the same in all qualities of steel.

The Right Tempering Color—is the one by which the tool obtains sufficient toughness for the purpose for which it is intended while retaining the greatest possible hardness.

Courtesy of Weston Electrical Instrument Corporation

BWH

MECHANICAL RUBBER GOODS

BWH means

BUIL

BWH RUBBER BELTING

- TRANSMISSION BELTING
- ROLL AND ENDLESS BELTS
- HEAVY DUTY
- HIGH SPEED
- CONVEYOR
- BUCKET ELEVATOR
- GRAIN ELEVATOR
- CANNERS'
- OIL FIELD
- AGRICULTURAL
- HOG BEATER

BWH RUBBER HOSE

- AIR – WATER – STEAM
- SUCTION – DREDGING
- FIRE – MILL – FORESTRY
- UNDERWRITERS'
- GASOLINE – OIL – SOLVENT
- SPRAY – WELDING
- GARDEN – GOLF – FLORISTS'
- AUTOMOTIVE
- CREAMERY – BREWERS'
- ACID – SANDBLAST – JETTING

BOSTON WOVEN HOSE

L WITH HONOR"

TRADE MARK

BWH BRASS FITTINGS

- EXPANSION RING COUPLINGS
- STEAM & WATER HOSE COUPLINGS
- AIR & SUCTION HOSE COUPLINGS
- HEAVY DUTY OIL FIELD COUPLINGS
- GARDEN HOSE COUPLINGS
- GARDEN HOSE SPRAY NOZZLES
- FIRE AND MILL HOSE NOZZLES
- UNDERWRITERS' NOZZLES
- MISCELLANEOUS FITTINGS

BWH MISCELLANEOUS PRODUCTS

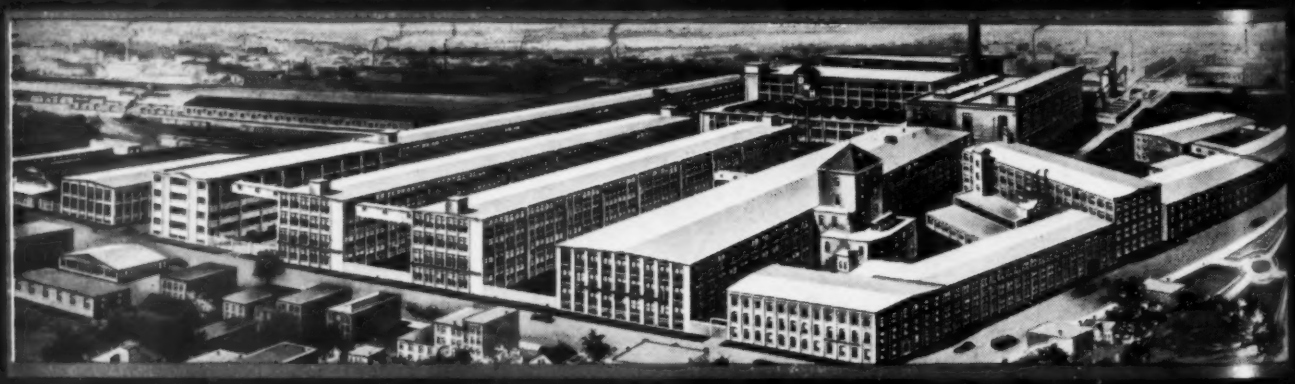
- FRICTION AND INSULATING TAPES
- SPLICING COMPOUNDS
- SHEET PACKING
- MATS AND MATTING
- STAIR TREADS
- ACID, BATTERY AND AUTO APRONS
- BLANKETS & HOSPITAL SHEETS
- AUTOMOBILE TOPPING
- ALL RUBBER AND C. I. TUBING
- TENSION ROLL COVERING
- LINEN HOSE

E AND RUBBER COMPANY

1878

Spreading over 6½ acres at the Cambridge gateway to Boston is the largest plant in the world devoted exclusively to mechanical rubber goods. ★ The present plant has more than 15 acres of floor space housed in 23 separate buildings mainly of modern reinforced concrete ★ In addition to the several departments necessary to manufacture the product the plant includes its own power house, a complete brass foundry and finishing shop and a modern reclaiming plant all coordinated for complete control.

1937



BOSTON WOVEN HOSE AND RUBBER COMPANY

THE DIRECTORY SECTION

How to Use It

IN the following pages, MILL SUPPLIES presents its annual listings of manufacturers of mill, mine, power and general industrial supplies, equipment and tools, their trade names and the products they make.

This section is compiled and edited specifically for the benefit of distributors of mill supplies and allied lines, and their salesmen. Every effort has been made to bring it completely up-to-date and all reasonable measures have been taken to avoid inaccuracies. We trust it will be exceedingly helpful to distributors and their salesmen during the coming twelve months.

The directory section is divided into an alphabetical list of manufacturers, with their addresses; the trade name section, and the classified list, in which products are arranged alphabetically and names of manufacturers thereof are grouped under them.

If you want to find the address of a manufacturer, turn to the "Names and Addresses" section.

If you want to know the names of manufacturers of a given item, turn to the "Classified List."

If you want to locate a trade name, turn to the "Trade Name Index." In case you do not find what you consider to be a trade name in the "Trade Name Index," look for a similar name in the "Classified List," among the manufacturers listed under the product in which you are interested.

More complete instructions on how to use each division of the directory section will be found on the first page thereof.

If at any time you cannot find the information you are seeking in the Directory Edition, write MILL SUPPLIES, and we will be glad to assist you.

In conclusion, we wish to express our appreciation of the help given us by manufacturers and others in the compilation of this Directory Section.

THE EDITORS

Indispensable!

THAT'S WHAT 6,000 INDUSTRIAL SUPPLY EXECUTIVES, BUYERS AND SALESMEN SAY ABOUT MILL SUPPLIES.

NINE OUT OF TEN SUBSCRIBERS RENEW THEIR SUBSCRIPTIONS YEAR IN AND YEAR OUT.

MILL SUPPLIES IS THE ONLY ESTABLISHED PUBLICATION ABOUT THE INDUSTRIAL SUPPLY BUSINESS THAT CARRIES THE COMPLETENESS OF NEWS OF THE TRADE — SALES TIPS — NEW PRODUCT DEVELOPMENTS — PROFITABLE IDEAS, ETC.

IF YOU VALUE KEEPING UP WITH THE INDUSTRIAL SUPPLY BUSINESS THERE IS ONLY ONE ANSWER—

READ MILL SUPPLIES

SUBSCRIPTION $1.00 PER YEAR — SPECIAL RATES TO COMPANY GROUP SUBSCRIPTIONS TOTALLING FOUR OR MORE.

MILL SUPPLIES

330 W. 42nd ST., NEW YORK, N. Y.

CLASSIFIED LIST

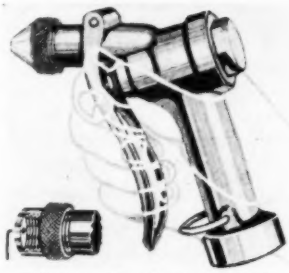
of Mill, Mine, Power and General Industrial Supplies, Equipment and Tools, and Manufacturers Thereof.

IN this section products are listed alphabetically and constitute the headings. Under each heading are listed (again alphabetically) the names of manufacturers of the product referred to, together with the cities in which their main offices or general sales offices are established.

In the great majority of cases product headings are arranged alphabetically according to the noun, with the descriptive adjective or adjectives, where there are any, following, for instance, "Bearings, Ball," and "Belting, Rubber." In a comparatively few cases, for reasons considered logical, products are arranged alphabetically according to the descriptive adjective. While we have used cross references extensively, there may be cases where they have been inadvertently omitted. Therefore, we would advise the directory user, if he does not find a certain product listed according to the noun and there is no cross reference, to turn to the place where the item would appear if listed according to the descriptive adjective.

They all like the . . .

NEW TRI-CON AIR GUN



¼" pipe thread spout adapter

WORKMEN: Because it's easier to handle and control.

SUPTS.: Because it speeds up production and reduces costly air waste.

JOBBERS: Because one size covers the range of four old style guns and results in a quicker turnover and better profit.

Send today for the complete Tri-Con story including particulars on our trigger-controlled spring type water nozzle and other profitable items.

Molded Specialties Company
4712 Chester Ave. Cleveland, Ohio

Abrasives

(See "Emery and Other Abrasives," "Coated Abrasives—Emery, Garnet, Silicon Carbide, Aluminous Oxide, Paper and Cloths," "Belts, Abrasive," "Discs, Abrasive," "Stones, Rubbing and Sharpening," "Wheels, Grinding," "Bricks and Sticks, Abrasive," "Grains, Abrasive," "Sandpaper," etc.)

Abrasive, Bands and Arbors

Armour Sand Paper Works, Chicago, Ill.
Behr-Manning Corp., Troy, N. Y.
Carborundum Co., Niagara Falls, N. Y.
Chicago Wheel & Manufacturing Co., Chicago, Ill.
Clover Mfg. Co., Norwalk, Conn. (Abrasive bands or belts)
Dumore Co., The, Racine, Wis.
Even-Cut Abrasive Band Co., Cleveland, O.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Pratt & Whitney Co., Hartford, Conn.

Adapter, Power Pipe Threading

Beaver Pipe Tools, Inc., Warren, Ohio.

Adapters, Cutter

Brown & Sharpe Mfg. Co., Providence, R. I.

Adzes

American Fork & Hoe Co., Cleveland, Ohio.
Collins Co., The, Collinsville, Conn.
Evansville Tool Works, Inc., Evansville, Ind.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio. (Miners')
Plumb, Fayette R., Inc., Philadelphia, Pa.

Air Brushes, Spray Painting

Paasche Airbrush Co., Chicago, Ill.

Air Chambers, Hydraulic

Farquhar. A. B., Co., Ltd., York, Pa.
Skinner Chuck Co., The, New Britain, Conn.

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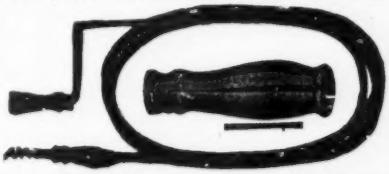

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Mann Edge Tool Co., Lewistown, Pa.
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Peck, Stow & Wilcox Co., Southington, Conn.
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Stanley Rule & Level Plant, New Britain, Conn.
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(See "Presses, Baling")

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Harris, Arthur, & Co., Chicago, Ill.

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Sheffield Steel Corp., Kansas City, Mo.

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Holcomb, A. L., Co., Grand Rapids, Mich.
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Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
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Barrows, Concrete

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Fairbanks Co., The, New York, N. Y.
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Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
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Mountville Mfg. Co., Mountville, Pa.
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Toledo Wheelbarrow Co., The, Toledo, Ohio.

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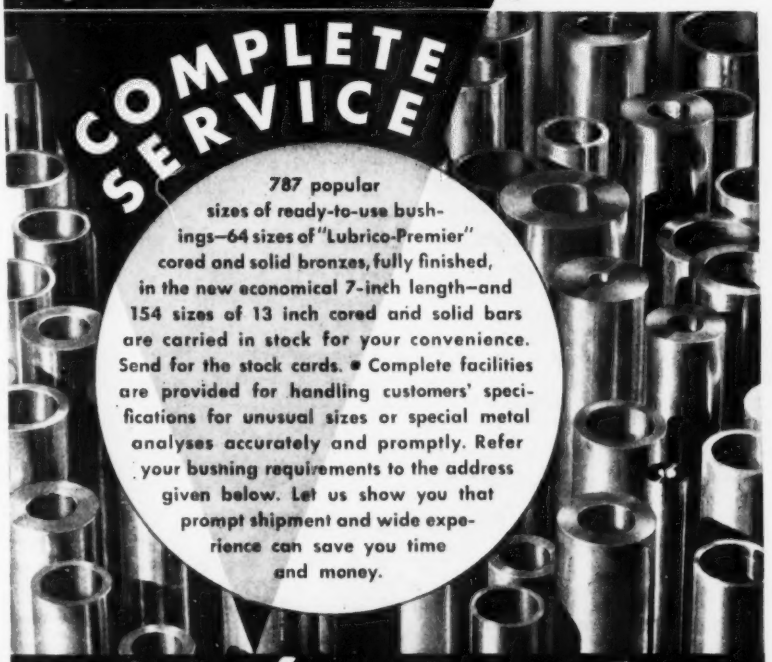

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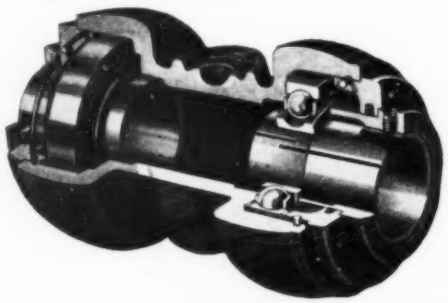

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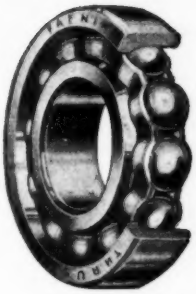

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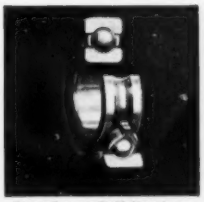

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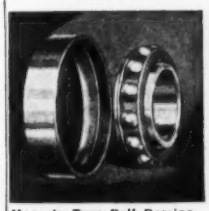


Magneto Type Ball Bearing

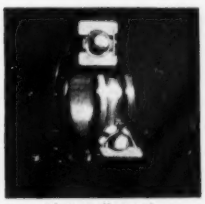
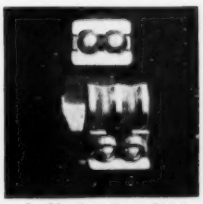


Plate Ball Bearing

Double Row Angular Contact Ball Bearing



Double Row Deep Groove Ball Bearing

Boston & Lockport Block Co., East Boston.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Buckeye Brass & Mfg. Co., The, Cleveland.
Bunting Brass & Bronze Co., Toledo, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Everitt Co., The, Boston, Mass.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Fredericksen Co., Saginaw, Mich.
Harris, Arthur, & Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
Magnolia Metal Co., Elizabeth, N. J.
Messmer Brass Co., St. Louis, Mo.
Moccasin Bushing Co., Chattanooga, Tenn.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse.
Palmer-Bee Co., Detroit, Mich.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., Baltimore.
Sumet Corp., Buffalo, N. Y.
Torrey Roller Bushing Works, Bath, Me.
Williams, E. A., & Son, Jersey City, N. J.
Wood's, T B., Sons Co., Chambersburg, Pa.

Bearings, Bronze, Babbitt Lined

Atlas Brass Foundry Co., The Columbus, O.
Atlas Brass Foundry, Los Angeles, Calif.
Buckeye Brass & Mfg. Co., Cleveland, O.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
National Lead Co., New York, N. Y.
Palmer-Bee Co., Detroit, Mich.
Prier Brass Mfg. Co., Kansas City, Mo.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.

Bearings, Eccentric

Allis-Chalmers Manufacturing Co., West Allis, Wis.

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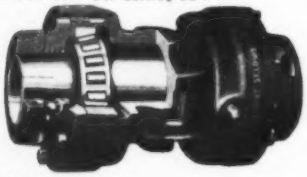
TIMKEN
HANGER BEARINGS
and
PILLOW BLOCKS
All types for industrial applications. Straight sleeve—taper sleeve—direct mounted. Get Catalog 56-T



Medart-Timken Bearings are of rugged design, suitable for heavy head shafts of all kinds. Ball and socket design of housings makes them self-aligning. Expansion types available where expansion and contraction of shafts must be given consideration.

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General Offices and Works:
3512 DeKalb St., St. Louis, Mo.
Engineering Sales Offices: Cincinnati, Cleveland, New York, Philadelphia, Buffalo, Pittsburgh, New Orleans, San Francisco, Charlotte, Minneapolis, Dallas, Chicago.

Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Filer & Stowell Co., The Milwaukee, Wis.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
Messinger Bearings, Inc., Philadelphia, Pa.
Palmer-Bee Co., Detroit, Mich.
S.K.F. Industries, Inc., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings and Bushings, Electric Motor

Atlas Brass Foundry, Los Angeles, Calif.
Buckeye Brass & Mfg. Co., Cleveland, O.
Bunting Brass & Bronze Co., Toledo, Ohio.
Fafnir Bearing Co., New Britain, Conn.
Hyatt Roller Bearing Co., Newark, N. J.
Johnson Bronze Co., New Castle, Pa.
Roller Bearing Co. of Amer., Trenton, N. J.
S.K.F. Industries, Inc., New York, N. Y.
Shafer Bearing Corp., Chicago, Ill.
Sumet Corp., Buffalo, N. Y.
Timken Roller Bearing Co., The, Canton, O.

Bearings, Needle Roller

Norma-Hoffmann Bearings Corp., Stamford, Conn.
Roller Bearing Company of America, Trenton, N. J.

Bearings, Oilless

American Injector Co., Detroit, Mich.
Atlas Brass Foundry, Los Angeles, Calif.
Arguto Oilless Bearing Co., Philadelphia.
Boston & Lockport Block Co., East Boston, Mass.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Continental-Diamond Fibre Co., Newark, Del.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Goodrich, B. F., Co., The, Akron, Ohio. (Rubber)
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J. (Hard rubber)
Mechanical Devices Co., Bloomington, Ill.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Torrey Roller Bushing Works, Bath, Me.
United States Graphite Co., The, Saginaw, Mich.

Bearings, Post

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., Cleveland.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S. K. F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Pressed Steel

Nice Ball Bearing Co., Philadelphia, Pa.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.

Bearings, Quill

Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
McGill Mfg. Co., Valparaiso, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Roller, Lineshaft

Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.

SKF
Puts the Right Bearing in the Right Place
MORE THAN 1200 TYPES AND SIZES
SKF makes practically all types of anti-friction bearings. When SKF recommends a particular type of bearing, therefore, you may depend upon it; its recommendations are unbiased!
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Spherical Roller Bearing

Adapter Sleeve Bearing

Type N Cylindrical Roller Bearing

Type NU Cylindrical Roller Bearing

Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hyatt Roller Bearing Co., Newark, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
McGill Mfg. Co., Valparaiso, Ind.
Medart Co., The, St. Louis, Mo.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Palmer-Bee Co., Detroit, Mich.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Timken Roller Bearing Co., The, Canton, O.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bearings, Roller, Machinery

American Roller Bearing Co., Pittsburgh.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hoover Ball and Bearing Co., Ann Arbor, Mich.
Hyatt Roller Bearing Co., Newark, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
McGill Mfg. Co., Valparaiso, Ind.
Medart Co., The, St. Louis, Mo.
Messinger Bearings, Inc., Philadelphia, Pa.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Orange Roller Bearing Co., Orange, N. J.
Palmer-Bee Co., Detroit, Mich.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Roller Bearing Co. of America, Trenton, N. J.

Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Timken Roller Bearing Co., The, Canton, Ohio.
Tyson Roller Bearing Corp., Massillon, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bearings, Self-Lubricating

Ahlberg Bearing Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Atlas Brass Foundry, Los Angeles, Calif.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Boston & Lockport Block Co., East Boston.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chain Belt Co., Milwaukee, Wis.
Continental-Diamond Fibre Co., Newark, Del.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Filer & Stowell Co., The, Milwaukee, Wis.
Johnson Bronze Co., New Castle, Pa.
Lignum-Vitae Products Corp., Jersey City.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Devices Co., Bloomington, Ill.
Metal Saw & Machine Co., Inc., Springfield, Mass.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Torrey Roller Bushing Works, Bath, Me.
United States Graphite Co., The, Saginaw, Mich.
Upson-Walton Co., The, Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings—Shaft—Chain, Collar, Ring and Wick Oiling

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia, Pa.
Arguto Oilless Bearing Co., Philadelphia.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill. (Ring and wick oiling)
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago. Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Shaft, Step and Wall

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hyatt Roller Bearing Co., Newark, N. J.
Lignum-Vitae Products Corp., Jersey City.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Take-Up

Ahlberg Bearing Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Orange Roller Bearing Co., Orange, N. J.
Palmer-Bee Co., Detroit, Mich.
S. K. F. Industries, Inc., Philadelphia, Pa.
Shafer Bearing Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill. (Conveyor)
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Thrust

Ahlberg Bearing Co., Chicago, Ill.
American Roller Bearing Co., Pittsburgh.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Boston Gear Works, Inc., North Quincy, Mass.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Continental-Diamond Fibre Co., Newark, Del.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoover Ball and Bearing Co., Ann Arbor, Mich.
Huron Industries, Inc., Alpena, Mich.
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown, N. Y.
McGill Mfg. Co., Valparaiso, Ind.
Medart Co., The, St. Louis, Mo.
Messinger Bearings, Inc., Philadelphia, Pa.
Nice Ball Bearing Co., Philadelphia, Pa.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Orange Roller Bearing Co., Orange, N. J.
Palmer-Bee Co., Detroit, Mich.
S.K.F. Industries, Inc., Philadelphia, Pa.
Timken Roller Bearing Co., The, Canton, Ohio.
Tyson Roller Bearing Corp., Massillon, O.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Vertical

Ahlberg Bearing Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown, N. Y.
Medart Co., The, St. Louis, Mo.
Orange Roller Bearing Co., Orange, N. J.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bells

(See "Gongs and Bells")

Belt Cement

(See "Cement, Belt")

Belt, Cotton Gin Distributor, Rubber Spiked

Cling-Surface Co., Buffalo, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, O.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.

Belt Dressing

(See "Dressing, Belt")

Belt Hooks, Lacers and Lacings

(See "Fasteners and Hooks, Belt," "Lacers, Belt," and "Lacing, Belt")

Belt Sticks for Putting Belts on Moving Pulleys

(See "Sticks, Belt")

Belt Lacing Tools

(See "Tools, Belt Lacing")

Belting, Abrasive

(See "Belts, Abrasive")

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This is the main or general sales office, or the one otherwise specified by the company

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Victor Balata & Textile Belting Co., New York, N. Y.

Belting and Brushes, Sifter Brush

(See "Sifter Brush Belting and Brushes")

Belting, Canvas, Stitched

Dick, R. & J., Co., Inc., Passaic, N. J.
Fenwick-Reddaway Mfg. Co., Newark, N. J.
Gandy Belting Co., Grand Rapids, Mich.

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SAVES POWER
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Hettrick Mfg. Co., The, Toledo, Ohio.
Imperial Belting Co., Chicago, Ill.
Main Belting Co., Philadelphia, Pa.
Manheim Mfg. & Belting Co., Manheim, Pa.
Victor Balata & Textile Belting Co., New York, N. Y.

Belting, Chain or Link

Cambridge Wire Cloth Co., Cambridge, Md.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Foote Gear Works, Inc., Cicero, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co., New York.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Belting, Combination Leather and Fabric

Alexander Brothers, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Himmelein & Bailey, Inc., Camden, N. J.
McIlroy Belting Works, Hammond, Ind.
Mountville Mfg. Co., Mountville, Pa.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Ranlville, F., Co., Grand Rapids, Mich.
Whiting Leather & Belting Co., Long Island City, N. Y.

Belting, Composition

Allentown Leather Belting Co., Allentown, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
Burrell Belting Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Duryea Products Co., New York, N. Y.
Fabreeka Products Co., Inc., Boston, Mass.

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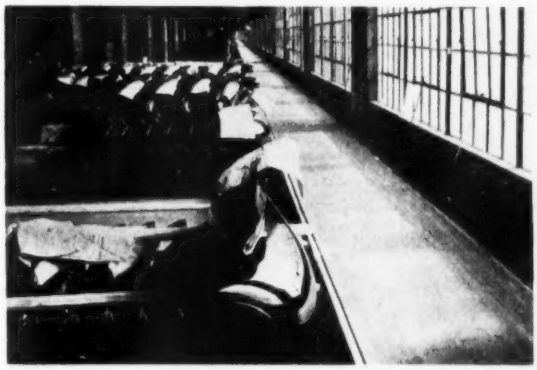
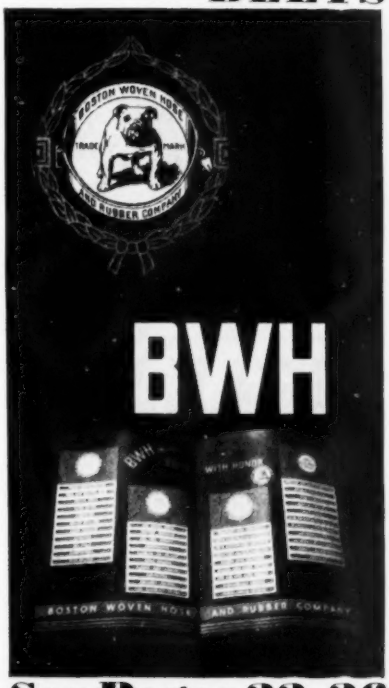
1,120 feet of 48 in., 5-ply "Malabar" Belting, handling enameled fenders on wood slide bed conveyor in one of the largest automobile plants.



Hettrick, for forty years, has served Industry, and leads in the development of better belting to meet the requirements of modern production. Hettrick Canvas Belting costs less and lasts longer—does not deteriorate when inactive—and operates more economically. Satisfaction guaranteed. Write us about our various types of specialized belting.

THE HETTRICK MFG. COMPANY
Summit at Magnolia St. TOLEDO, OHIO

CONVEYOR BELTS



See Pages 33-36

Gandy Belting Co., Grand Rapids, Mich.
Gilmer, L. H., Co., Philadelphia, Pa.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Belting Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mountville Mfg. Co., Mountville, Pa.
Nucord Products Co., Chicago, Ill.
Philadelphia Belting Co., Philadelphia, Pa.
Ton-Tex Corp., Grand Rapids, Mich.
Victor Balata & Textile Belting Co., New York, N. Y.

Belting, Conveyor and Elevator

Alexander Brothers, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Cambridge Wire Cloth Co., Cambridge, Md.
Chicago Belting Co., Chicago, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Duryea Products Co., New York, N. Y.
Fabreeka Products Co., Inc., Boston, Mass.
Franklin Cotton Mill Co., The, Cincinnati, Ohio.
Gandy Belting Co., Grand Rapids, Mich.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Imperial Belting Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McIlroy Belting Works, Hammond, Ind.
McLanathan, F. W., & Son, Lawrence, Mass.
Main Belting Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mechanical Rubber Co., The, Passaic, N. J.
Michigan Wire Cloth Co., Detroit, Mich.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
New York Belting & Packing Co., Passaic, N. J.
Nucord Products Co., Chicago, Ill.
O'Meara Belting Co., Omaha, Neb.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Belting Co., Philadelphia.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Stanley Belting Corp., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Abestos, Division of Raybestos-Manhattan, Inc., Manheim, Pa. (Asbestos)
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whitehead Bros. Rubber Co., Trenton.
Wickwire Spencer Steel Co., New York.

Belting, Cotton, Solid Woven

Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Chicago Belting Co., Chicago, Ill.
Duryea Products Co., New York, N. Y.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.

(Continued on page 52)

GLOBE

PRODUCTS

- SOLID WOVEN WHITE COTTON BELTING—Solidly woven in a balanced continuous construction—no plies to separate. Largely used for conveyor purposes in bakeries, department stores, as well as for all types of light conveyor jobs, such as carrying fruits, nuts and vegetables. In flour mills, it is used for elevator purposes.
- SOLID WOVEN WATERPROOF TREATED BELTING.—Particularly adapted for the abnormal transmission drive; for example, drives running under steam, moisture and mild acid conditions. Used in dairies, dye plants, brick plants, laundries, etc.
- ENDLESS WOVEN BELTS — Made in one continuous piece —no joint—no splice; absolutely endless. Stretch and slippage have been eliminated. Widely used on high speed tools, grinders, drill presses, woodworking machines, etc. May also be coated with abrasives and used for polishing operations.
- OTHER GLOBE PRODUCTS INCLUDE:

HARVESTER WEBBING
SIFTER BRUSH WEBBING
SHOE MACHINE WEBBING
BOLTING CLOTH WEBBING
APRON WEBBING
SPINDLE BANDING
LINEN WEBBING

Webbing and Belting Specialties.

- GLOBE WOVEN PRODUCTS are sold through Mill Supply distributors. Write us for samples and prices. Large stocks insure prompt service.

GLOBE
Woven Belting Co., Inc.
1396-1400 Clinton Street
BUFFALO, N. Y.

SCHIEREN

LEATHER BELTING and *Specialties*

"DUXBAK"
Waterproof Leather Belting
"Duxbak" Waterproof Cement
Solid Round Leather Belting
"American Patent Joint"
Link Leather Belting
Round Twist Leather Belting
Schieren Belt Lacing
Schieren Belt Cement
"Flyfoot" Belt Dressing
"Natural Grip" Belt Dressing
Textile Leather Specialties
Schieren Leather Packings
and our
"Bull's Head," "Royal Extra,"
"Eagle," "White Oak"
and
"Dixie" Brands of Leather Belting
each of a grade and type suited to certain definite requirements of use, in Power Transmission.

"HI-CAPACITY"

DUXBAK BELTING TRADE MARK

New addition to the world famous line of Schieren DUXBAK "Waterproof" and DUXBAK "Steamproof" Leather Belting. All three types available in Heavy Single or Double weight, Light Double (Planer) or Extra Heavy Single (Planer).

"Hi-Capacity" DUXBAK is a combination-tanned belting of unusual pliability, with LOW STRETCH and high co-efficient of friction on the pulleys. Ideally suited to modern industrial requirements. Prices and descriptive literature on request.

DUXBAK BELTING
Chas. A. Schieren Company
Tanners and Manufacturers of
LEATHER BELTING PACKINGS and SPECIALTIES
Main Office and Factory:
42 FERRY STREET NEW YORK
Branches and Distributors in All Principal Cities

Oak Leather Tanneries: Bristol, Tenn.

Belting, Cotton, Solid Woven

(*Continued from page 51*)

Fenwick-Reddaway Mfg. Co., Newark, N. J.
Franklin Cotton Mill Co., The, Cincinnati.
Gandy Belting Co., Grand Rapids, Mich.
Gilmer, L. H., Co., Philadelphia, Pa.
Globe Woven Belting Co., Inc., Buffalo.
Himmelein & Bailey, Inc., Camden, N. J.
McIlroy Belting Works, Hammond, Ind.
Missouri Belting Co., St. Louis, Mo.
O'Meara Belting Co., Omaha, Neb.
Palmer-Bee Co., Detroit, Mich.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Russell Mfg. Co., Middletown, Conn.
Stanley Belting Corp., Chicago, Ill.
Victor Balata & Textile Belting Co., New York, N. Y. (Also inter-woven)
Webb, J. A., Belting Co., Inc., Buffalo.

Belting, Hair

Fenwick-Reddaway Mfg. Co., Newark.
Himmelein & Bailey, Inc., Camden, N. J.
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo.

Belting, Leather

Alexander Brothers, Inc., Philadelphia.
Alexander, E. P., & Son, Inc., Clifton Heights, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allentown Leather Belting Co., Allentown, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Central Rubber & Supply Co., Indianapolis, Ind.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.

SINCE 1886
MANUFACTURERS
of
High Grade
LEATHER BELTING

Distributors write for discounts

J. T. WING & COMPANY
DETROIT, MICHIGAN

CHARLES Bond COMPANY
617-623 Arch Street, Philadelphia, Pa.

We are manufacturers of the
UNEXCELLED
Bondaron BONDARON
Bondural BONDURAL
Bondex BONDEX
lines of Belting and Textile Leathers.

Specific information and quotations gladly sent on receipt of inquiry.

Modernized

LEATHER BELTING

made from

TRIPLE STRETCHED LEATHER

All our Belting is made exclusively from TRIPLE STRETCHED LEATHER. This is a GUARANTEE of minimum stretch in the finished product and an assurance to the user that the Belting, properly installed, will give longer service, with greatly reduced maintenance expense.

All Belting manufactured by us is made with WATERPROOF CEMENT.

Our product is marketed practically entirely through Mill Supply Distributors. Our sales policy is so planned as to continually place the Distributor in a position to compete with direct selling manufacturers as well as other Mill Supply Distributors—AT A GOOD MARGIN OF PROFIT.

May we submit our proposition?

JOHNSON BELTING COMPANY

34-44 HUBERT ST. NEW YORK

Manufacturers of Flat and Round Leather Belting—and Leather Specialties.

Degen-Fiege Belting Co., Los Angeles, Calif.
Detroit Oak Belting Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Evansville Leather & Belting Co., Evansville, Ind.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Johnson Belting Co., New York, N. Y.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
McLean Manufacturing Corp., New York.
McLeod Leather & Belting Co., Greensboro, N. C.
MacWatty Belting Co., Providence, R. I.
Milwaukee Leather Belting Co., Milwaukee, Wis.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.

(*Continued on page 54*)

Turn to the

"Trade Name Index"

for trade names

RESEARCH Leather Belting

All of the brands shown and described below are made in the Home of Research by the "tension cementing process" developed and patented by Graton & Knight Company.

CENTER STOCK RESEARCH BELTING

GRATON AND KNIGHT 5 — Graton & Knight 5 is made in all widths and plies. Singles, 13/64"; Doubles, 23/64" thick.

GRATON AND KNIGHT 6 — Graton & Knight 6 is made in all widths and plies. Singles, 11/64"; Doubles, 20/64" thick.

GRATON AND KNIGHT 7 — Graton & Knight 7 is made in all widths and plies. Singles, 9/64"; Doubles, 18/64" thick.

Special Tannage "Spartan" Belting

GRATON AND KNIGHT 16 SPARTAN — Graton & Knight 16 Spartan withstands to an unusual degree the harmful effects of steam, oil, heat, acid fumes, and other destructive agencies.

It is made of center stock only in all width and plies. All Spartan Belts over 4 inches wide should be Double ply. Singles over 4 inches wide are not recommended. Spartan 16 is made in three thicknesses, the thickness depending on drive requirements.

Spartan and Oak Belting

GRATON AND KNIGHT 18 — This Belting is made in Doubles only, one ply Oak and the other Spartan. It is made in three thicknesses, the thickness depending on drive requirements.

Planer Belting

made especially for Planer service

GRATON AND KNIGHT 19 — Graton & Knight 19 Planer Belting is made of Research Oak Tanned Leather. It is made in Doubles only, not over 8 inches wide. Thickness, 18/64".

GRATON AND KNIGHT 17 — Graton & Knight 17 Planer Belting is made of Research Spartan Leather. It is made in Doubles only, not over 8 inches wide. Thickness, 18/64".

GRATON AND KNIGHT 22 — Graton & Knight 22 Planer Belting is made of Research Chrome Tanned Leather. It is made in Doubles only, not over 8 inches wide. Thickness, 18/64".

Special Single and Double Belting

GRATON AND KNIGHT 4 — A Research Leather Belt of Extra Heavy selection made for special Heavy Duty service. Made in Singles only and not over 4 inches wide. Thickness, 15/64".

GRATON AND KNIGHT 8 — A Research Leather Belt made in Doubles only, Extra Light selection, for special Light Duty on small pulleys at high speeds. Not over 6 inches wide. Thickness, 16/64".

SIDE STOCK RESEARCH BELTING

GRATON AND KNIGHT 11 — Graton & Knight 11 is made not over 6 inches wide in Single thickness and 12 inches wide in Double thickness. Singles, 13/64"; Doubles, 22/64" thick.

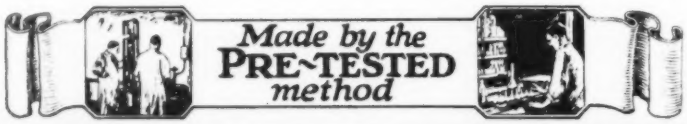
GRATON AND KNIGHT 12 — Graton & Knight 12 is made not over 6 inches wide in Single thickness and 12 inches wide in Double thickness. Singles, 11/64"; Doubles, 19/64" thick.

Other products: Research Belt Dressing, Lace Leathers, Round Belting and Belting Cements.

All distributors listed in A-Z Section of 1936 Thomas' Register; in special Graton & Knight insert in Belting Section of 1937 Thomas' Register.

GRATON AND KNIGHT

GRATON & KNIGHT COMPANY
Worcester, Mass.
THE HOME OF RESEARCH



Chicago Belting Company

A few profitable territories are open on

Tension Welded leather belting

America's most economical leather belting

Scientifically manufactured for the most satisfactory performance and lowest operating costs known to power belting.

ALL DOUBLE BELTS give you longer life and more efficient operation while reducing your maintenance 50% to 75% because they are cemented together under tension on patented tension cementing machine which eliminates surplus belt stretch and makes the belts more pliable and far more uniform.

ALL SINGLE BELTS are improved with Chicago Belting patented lap construction which improves the service from single belts and increases their dependability. Both single and double are made in the following:—

TENSION WELDED CENTER STOCK BELTING

Reliance **Sea Lion** The finest oak tannage belts manufactured. Pre-tested in every operation when made and Tension Welded. Accepted in all industries as being a decided improvement in the quality and value of leather belting. Each belt guaranteed to give satisfaction. These brands used and favored by "big business" throughout the United States. Sold all over the world.

Flextan—Highest quality of Tension Welded, pre-tested chrome leather improved by retanning with special tannage. Has high transmitting capacity per inch of width, is exceptionally pliable. Saves money and is more dependable because the stretch is reduced by cementing under tension. Recommended in double belts only.

White Strip—The famous belt with the ply of rawhide between two plies of Sea Lion oak. The most stretchless leather belt and the strongest. Used for America's hardest drives for years. Has no competition in its class. A 3 ply belt and cemented by hand.

TENSION CEMENTED SIDE STOCK BELTING

Sterling **Imperial** **Chicago** These are the next cuts to Reliance and Sea Lion, are of the same fine belting leather and have the very great advantage of being Tension Cemented in the doubles and with Chicago Belting's patented laps in the singles. In their class they serve better and save money wherever used.

TENSION WELDED SPECIAL BELTS

Yarn Maker—Special double belting for spinning frame drives.

Sea Lion Center Stock Planer—An achievement in belts for wood planers.

Special Rockwood Drive short center belts—More uniform in thickness. Balanced for truer quiet running. Special, more uniform laps. Each belt guaranteed. Made in Reliance, Sea Lion and Flextan. These are the best belts for pivoted motor drives.

CHICAGO BELTING ENGINEERING SERVICE

For distributors' salesmen. Furnishes engineering blue prints of installations and change-overs. Great help to the salesmen. Valuable to your customers.

A few territories are open. Write us

Green and Washington Streets, Chicago

DEALERS THROUGHOUT THE UNITED STATES

Chicago Belting Company

Belting, Leather

(*continued from page 53*)

Salisbury, W. H., & Co., Inc., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Slip Not Belting Corp., Kingsport, Tenn.
Smyth-Despard Co., Utica, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Rawhide & Belting Co., Milwaukee, Wis.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Wing, J. T., & Company, Detroit, Mich.

Belting, Leather, Cone

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Clifton Heights, Pa.
Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Eagle Counter & Leather Co., The Cincinnati, Ohio.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Jerry Bros. Belting Co., Richmond, Va.
Johnson Belting Co., New York, N. Y.
McLanathan, F. W., & Son, Lawrence, Mass.
McLeod Leather & Belting Co., Greensboro, N. C.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Leather Link

Alexander Brothers, Inc., Philadelphia.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Whiting Leather & Belting Co., Long Island City, N. Y.

Belting, Leather, Rawhide

Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Frey Tanning Co., Lancaster, Pa.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Keystone Belting Co., Philadelphia, Pa.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Western Rawhide & Belting Co., Milwaukee, Wis.

Belting, Leather, Round and Twist

Alexander Brothers, Inc., Philadelphia.
Alexander, E. P., & Son, Inc., Clifton Heights, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allentown Leather Belting Co., Allentown, Pa.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.

CHICAGO RAWHIDE

ROUND BELTING

Round Twisted Rawhide Belting. Tough, resilient, flexible, mechanically tanned rawhide well stretched and twisted to accurate diameters.

5 Types

Solid Round leather belting. Made in 5 tannages of selected steer hide centers—Rawhide, chrome, Triran, Hair-on-round, Oak. Full rounds well stretched. A complete line.

Write for Catalog

CHICAGO RAWHIDE MFG. CO.
1286 Elston Avenue, Chicago
Branches Everywhere

Capen Belting & Rubber Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich. (Round only)
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Illinois Mechanical Leather Co., Chicago.
Johnson Belting Co., New York, N. Y.
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
MacWatty Belting Co., Providence, R. I.
McLanathan, F. W., & Son, Lawrence, Mass.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Slip Not Belting Corp., Kingsport, Tenn.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Leather, Steam Proof

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Clifton Heights, Pa.
Allentown Leather Belting Co., Allentown Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Degen-Fiege Belting Co., Los Angeles, Cal.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Jerry Bros. Belting Co., Richmond, Va.
Johnson Belting Co., New York, N. Y.
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
McLean Manufacturing Corp., New York.
McLeod Leather & Belting Co., Greensboro, N. C.
Milwaukee Leather Belting Co., Milwaukee.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Smyth-Despard Co., Utica, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Leather, Waterproof

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Clifton Heights, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allentown Leather Belting Co., Allentown, Pa.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Central Rubber & Supply Co., Indianapolis, Ind.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Degen-Fiege Belting Co., Los Angeles, Cal.
Detroit Oak Belting Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Evansville Leather & Belting Co., Evansville, Ind.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Jerry Bros. Belting Co., Richmond, Va.
Johnson Belting Co., New York, N. Y.
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
McLean Manufacturing Corp., New York.
McLeod Leather & Belting Co., Greensboro, N. C.
MacWatty Belting Co., Providence, R. I.
Milwaukee Leather Belting Co., Milwaukee, Wis.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Salisbury, W. H., & Co., Inc., Chicago, Ill
Schieren, Chas. A., Co., New York, N. Y
Slip Not Belting Corp., Kingsport, Tenn.
Smyth-Despard Co., Utica, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Rawhide & Belting Co., Milwaukee, Wis.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Rope

(See "Rope, Manila," "Rope, Wire," and "Rope, Rawhide")

Belting, Rubber

Allentown Leather Belting Co., Allentown, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Chicago Belting Co., Chicago, Ill.

RUBBER
BELTING

See Pages 33-36

Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Degen-Fiege Belting Co., Los Angeles, Cal.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Eagle Belting Co., Chicago, Ill.
Fabreeka Products Co., Inc., Boston, Mass.
Gilmer, L. H., Co., Philadelphia, Pa.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marion Machine Foundry & Supply Co., Marion, Ind.
Mechanical Rubber Co., Passaic, N. J.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
New York Belting & Packing Co., Passaic, N. J.

(Continued on page 56)

Send Your Order for HOME RUBBER COMPANY BELTING

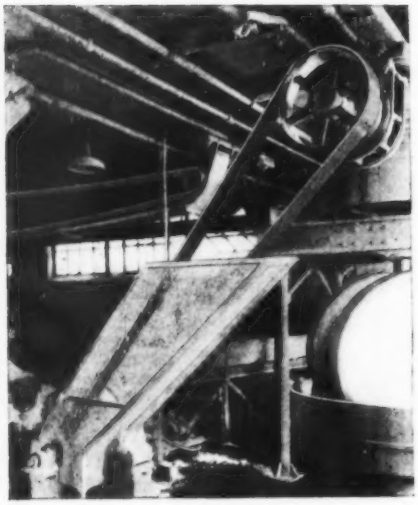
TRANSMISSION — CONVEYOR — ELEVATOR

SERVING INDUSTRY OVER 56 YEARS

Home Rubber has been serving industry through mill supply houses for over 56 years. Complete information on our policy, and samples and prices will gladly be furnished on request.

HOME RUBBER CO., Trenton, N. J.
BRANCHES:—NEW YORK—CHICAGO—LONDON

Industry pays a terrific penalty for poorly chosen BELTING



Poorly selected belting is responsible equally as much as poorly constructed belting for tremendous losses to industry every year. Yet there is always a type that is perfectly adapted to your needs. For years, Thermoid engineers have worked closely with mill maintenance men studying the needs for various types of service and developing beltings that would answer them. Today, Thermoid offers a complete line of beltings including these standard types:—

CONVEYOR BELTING
TRANSMISSION BELTING
GRADER BELTING
CANNERS BELTING
BUCKET ELEVATOR BELTING
GRAIN ELEVATOR BELTING
AGRICULTURAL BELTING
HOG SCRAPER BELTING
ENDLESS THRESHER BELTING
OIL COUNTRY BELTING
AXLE LIGHTING BELTING

THERMOID RUBBER COMPANY
FACTORY AND MAIN OFFICES . . . TRENTON, NEW JERSEY

Thermoid

BELTING · PACKING · HOSE · BRAKE LININGS

Belting, Rubber

(Continued from page 55)

Nucord Products Co., Chicago, Ill.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Ton-Tex Corp., Grand Rapids, Mich.
Webb, J. A., Belting Co., Inc., Buffalo.
Whitehead Bros. Rubber Co., Trenton, N. J.

Belting, Used and Reconstructed

Alexander, E. P., & Son, Inc., Clifton Heights, Pa.
Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Degen-Fiege Belting Co., Los Angeles, Cal.
Detroit Oak Belting Co., Detroit, Mich.
Duryea Products Co., New York, N. Y.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Graton & Knight Co., Worcester, Mass.
Keystone Belting Co., Philadelphia, Pa.
McLeod Leather & Belting Co., Greensboro, N. C.
Missouri Belting Co., St. Louis, Mo.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Belts, Abrasive

Behr-Manning Corp., Troy, N. Y.
Brown, D. P., & Co., Philadelphia, Pa.
Carborundum Co., The, Niagara Falls, N. Y.
Cleveland Container Co., The, Cleveland, O.
Clover Mfg. Co., Norwalk, Conn.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Minnesota Mining & Mfg. Co., St. Paul.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Walls Sales Corp., New York, N. Y.

Belts, Endless, Thresher, Etc.

Allentown Leather Belting Co., Allentown, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Baltimore Belting Co., Baltimore, Md.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Chicago Belting Co., Chicago, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J. (Fabric)
Detroit Oak Belting Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Fabreeka Products Co., Inc., Boston, Mass.
Field, R. B., & Co., Worcester, Mass.
Gandy Belting Co., Grand Rapids, Mich.
Gilmer, L. H., Co., Philadelphia, Pa.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
McIlroy Belting Works, Hammond, Ind.
Main Belting Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mechanical Rubber Co., The, Passaic, N. J.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
Moloney Belting Co., Chicago, Ill.
New York Belting & Packing Co., Passaic, N. J.
Nucord Products Co., Chicago, Ill.
O'Meara Belting Co., Omaha, Neb.
Philadelphia Belting Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Balata & Textile Belting Co., New York, N. Y. (Including car lighting belts)
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whitehead Bros. Rubber Co., Trenton, N. J.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belts, Linemen's

Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Field, R. B., & Co., Worcester, Mass.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Klein, M., & Sons, Chicago, Ill.
Moloney Belting Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.

Belts, Safety, Miners'

Brown, Arthur S., Mfg. Co., Tilton, N. H.
Bullard, E. D., Co., San Francisco, Calif.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Klein, M., & Sons, Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Rope Fire Escape Co., Philadelphia, Pa.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.

Belts, Sanding and Polishing

Armour Sand Paper Works, Chicago, Ill.
Behr-Manning Corp., Troy, N. Y.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Carborundum Co., The, Niagara Falls, N.Y.

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MILL SUPPLIES
"The Magazine for Distributors and Their Salesmen"

DAYTON V-BELTS AND DRIVES
ALWAYS AVAILABLE

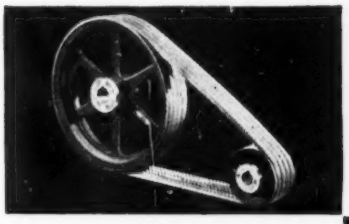
Complete warehouse stocks make the following line of Dayton V-Belts and Drives immediately available for machines of all types in factories, mills, mines, quarries, oil fields, refineries, printing plants, office and apartment buildings; on construction work, railway cars, and ships.

1. Dayton Cog-Belt Drives, including pulleys for all power requirements up to 1,000 h.p.

2. Dayton Cog-Belts with Day-Steel Pulleys for drives up to 15 h.p.—all speed ratios. Pulleys of 1 to 6 grooves; 30% to 50% lower in price.

3. Standardized Fractional Horse Power Drives—V-Belts and Pulleys—for every speed ratio and center distance.

4. Dayton V-Flat Belts.



THE DAYTON RUBBER MFG. CO.
DAYTON, OHIO
World's Largest Manufacturer of V-Belts
Manufacturers also of Dayton Fan Belts, Dayton Red Tube Radiator Hose, and the famous Dayton Thorobred Tires and Tubes

COMPACT, DURABLE AND EFFICIENT

Dayton
COG-BELT DRIVES

Chicago Rawhide Mfg. Co., The, Chicago.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Clover Mfg. Co., Norwalk, Conn.
Couse & Bolten, Inc., Newark, N. J.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Franklin Cotton Mill Co., The, Cincinnati.
Gandy Belting Co., Grand Rapids, Mich.
Gilmer, L. H., Co., Philadelphia, Pa.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Ohio Buff & Mfg Co., The, Cincinnati, O.
Page Belting Co., Concord, N. H.
Raniville, F., Co., Grand Rapids, Mich.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Ton-Tex Corporation, Grand Rapids, Mich.
Walls Sales Corp., New York, N. Y.

Belts, "V"

Alexander Brothers, Inc., Philadelphia, Pa.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis, Mo.
Central Rubber & Supply Co., Indianapolis.
Chicago Belting Co., Chicago, Ill.
Couse & Bolten, Inc., Newark, N. J.
Dayton Rubber Mfg. Co., The, Dayton, O.
Delta Mfg. Co., Milwaukee, Wis.
Detroit Oak Belting Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Eagle Belting Co., Chicago, Ill.
Foote Gear Works, Inc., Cicero, Ill.

(Continued on page 58)

ROCKWOOD
SUPERIOR
V-TYPE BELTS

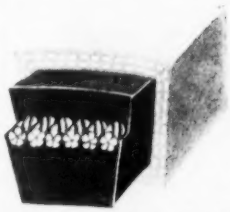
LARGE STOCKS
QUICK DELIVERY

for industrial and household drives

Scientifically constructed for high transmitting efficiency and enduring dependability. You'll profit by selling these quality belts. Carry an assortment for refrigerators and washing machines—list of sizes on request.

ROCKWOOD MFG. CO.
INDIANAPOLIS, INDIANA

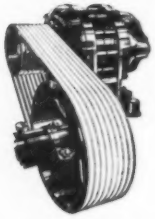
BROWNING GRIPBELTS



HIGHEST QUALITY
ALL SIZES IN STOCK
WRITE FOR CATALOGUE

Ohio Valley Pulley Works
Div.—Browning Mfg. Co.
Maysville, Ky.

TEXROPE DRIVES



TEXROPE DRIVES offer power transmission that may be adapted to machinery mountings in any direct position. They eliminate shut-downs, are 98.9% efficient, require no belt dressing or lubrication, are unaffected by dirt or moisture, are vibrationless, slipless and silent. Texrope Drives are built in ranges from ½ to 2,000 H. P. and in speed ratios from 1 to 1, to 10 to 1 in all popular motor ratings.

TEXROPE V-BELTS These belts, made for Allis-Chalmers by the B.F.Goodrich Rubber Co., are scientifically designed to withstand flexing and are formed in precisely machined moulds. The extreme accuracy of both Texrope Sheaves and V-Belts combine to give a very high degree of efficiency and long life.

DURO-BRACE SHEAVE The outside walls of this new sheave are reinforced with convex steel plates which so greatly increase their strength as to eliminate distortion, even under extreme overloads—thus giving a true-running, vibrationless drive always.

VARI-PITCH SHEAVE The Vari-Pitch Texrope Sheave represents a vital new development in power transmission. In this new sheave, by a simple adjustment which takes but a few moments, the pitch can be altered so as to give a variation in speed of from 15 to 25 per cent.

STRAITLINE MOTOR BASE With the new Straitline Automatic Ball Bearing Motor Base the finest adjustments are possible and easy to accomplish—all you do is turn a hand-wheel. The indicator dial, on this new motor base, tells you exactly what your tension is at all times and you can make your adjustment while running. This base eliminates all guesswork.

ALLIS-CHALMERS MFG. CO.
MILWAUKEE, WISCONSIN

TEXROPE DRIVES

Belts, "V"

(Continued from page 57)

Gates Rubber Co., The, Denver, Colo.
Gilmer, L. H., Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Johnson Belting Co., New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Medart Co., The, St. Louis, Mo.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Rahmann, Geo., & Co., New York, N. Y.
Republic Rubber Co., The, Youngstown, O.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Rockwood Mfg. Co., Indianapolis, Ind.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whiting Leather & Belting Co., Long Island, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Why

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Salesmen in mill supply houses all over the country read **Mill Supplies** every month for information to help them do their jobs better and make more money

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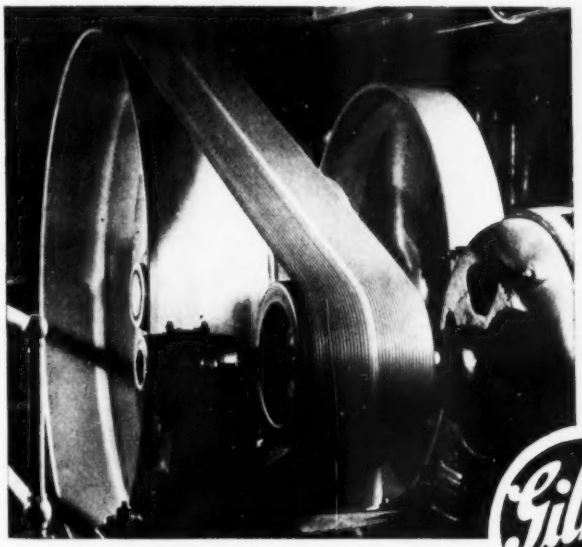

Gilmer BELTS

KABLE KORD

It's *tough.* Lasts longer, grips flat pulleys tighter, slips less, delivers maximum power per square-inch. Two-belts-in-one performance because Kable Kord actually is two-belts-in-one: a power belt and a contactor belt. Pulling cords, protected by a tough "hide," hold the belt snugly against the pulleys, cutting out power-wasting slip. Kable Kord cuts costs. Comes endless or in rolls.

FREE—Kable Kord Data Book and V-Belt Catalogues. Gilmers sell because they save. Are *you* cashing in? Ask about the Gilmer franchise.

V-BELTS

Lick multiple-drive problems with Gilmer's "Fighting Five." 1. *Top Rubber*—Instantly flexes to a perfect fit in any groove; perfectly *straight* sides bulge evenly. 2. *Pulling Cords*—Small-diameter pulling cords concentrating great pulling power in thin, very flexible section. 3. *Bottom Rubber*—Supports pulling cords in permanent horizontal plane; resists heat; runs cool. 4. *Double Jacket*—Protects working parts; greatly prolongs life. 5. *Controlled Stretch*—Built to insure matched lengths under working conditions . . . Single-strand V-Belts save money, too, on fractional horsepower drives.

L. H. GILMER COMPANY, Tacony, Philadelphia

Belts, Window Washers'

Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Field, R. B., & Co., Worcester, Mass.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Graton & Knight Co., Worcester, Mass.
Moloney Belting Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Rope Fire Escape Co., Philadelphia, Pa.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.

Bench Legs

(See "Legs, Bench")

Benches, Draw

Oliver, W. W., Mfg. Co., The, Buffalo, N.Y.
Pollard Bros. Mfg. Co., Chicago, Ill.

Benches, Molders'

Pollard Bros. Mfg. Co., Chicago, Ill.

Benches, Pipe Cutting and Threading

Hollands Mfg. Co., Erie, Pa.
Market Forge Co., Everett, Mass.
Martin, H. P., & Sons, Owensboro, Ky.
Nye Tool & Machine Works, The, Chicago.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Benches, Saw, Portable

Boice-Crane Co., Toledo, Ohio.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Speedway Manufacturing Co., Cicero, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.

Benches, Work

Angle Steel Stool Co., Plainwell, Mich.
Aurora Equipment Co., Aurora, Ill.
Delta Mfg. Co., Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Pollard Bros. Mfg. Co., Chicago, Ill. (All steel and wood steel)
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Toles, W. C., Co., Woodstock, Ill.

Benders, Angle

Blackhawk Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hinman, D. A., & Co., Inc., Sandwich, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Whitney Metal Tool Co., Rockford, Ill.

Benders, Bar

Blackhawk Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hinman, D. A., & Co., Inc., Sandwich, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Manufacturing Co., Shelbyville, Ill.

Benders, Conduit and Pipe

Bernz, Otto, Co., Inc., Rochester, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Hinman, D. A., & Co., Inc., Sandwich, Ill.
Hollands Mfg. Co., Erie, Pa.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lidseen, Gustave, Inc., Chicago, Ill.
Martin, H. P., & Sons, Owensboro, Ky.
Noyes, B. B., Co., Greenfield, Mass.
Parker Appliance Co., The, Cleveland, O. (Copper tube benders)
Sampson Tool Co., New York, N. Y.
Silvey Pipe Bender Co., Kansas City, Mo.
Skinner, M. B., Co., South Bend, Ind.
Tallman Manufacturing Co., Shelbyville, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Watson-Stillman Co., The, Roselle, N. J.

Benders, Rail

Aldon Co., The, Chicago, Ill.
Blackhawk Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Dudgeon, Richard, Inc., New York, N. Y. (Hydraulic)
Excelsior Tool and Machine Co., East St. Louis, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Manufacturing Co., Shelbyville, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Benders, Tire

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Hays Manufacturing Co., Erie, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.

Bending Machines, Pipe

(See "Machines, Bending, Pipe")

Bends and Coils, Pipe

American Cast Iron Pipe Co., Birmingham, Ala.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Buffalo Forge Co., Buffalo, N. Y.
Carbondale Machine Corp., Harrison, N. J.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Chicago Nipple Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Corning Glass Works, Corning, N. Y. (Glass pipe bends and coils)
Crane Co., Chicago, Ill.
Gardiner Metal Co., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur & Co., Chicago, Ill.
Harrisburg Steel Corp., Harrisburg, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Keystone Boiler & Foundry Co., Landisville, Pa.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
Midwest Piping & Supply Co., St. Louis, Mo.
Mitchell, W. K., & Co., Inc., Philadelphia.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Pancoast, Henry B., Co., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, Ohio. (Copper tube)
Reading Iron Co., Philadelphia, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich.

Bends, Return

American Cast Iron Pipe Co., Birmingham.
Acheson Manufacturing Co., Rankin, Pa. (Brass)
Belfield, H., Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Corning Glass Works, Corning, N. Y.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur, & Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Malleable Iron Fittings Co., Branford, Conn.
Northwest Lead Co., Seattle, Wash.
Parker Appliance Co., The, Cleveland, Ohio. (Copper tube)
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Semler Co., Jeannette, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Swett, A. L., Iron Works, Medina, N. Y.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich.

Bevels

Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Bibbs

Baltimore Valve Corp., Baltimore, Md.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Empire Brass Co., The, Cleveland, O.
General Brass Co., Detroit, Mich.
Goodrich, B. F., Co., The, Akron, Ohio. (Hard rubber)
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Munn Brass Works, Rochester, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Sherman, H. B.. Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Binders, Load

Advance Car Mover Co., Inc., Appleton, Wis.
American Logging Tool Co., Evart, Mich.
Atkins, E. C., & Co., Indianapolis, Ind.
Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
Newhall Chain Forge & Iron Co., New York.

Binders, Loose Leaf Catalog

Dietzgen, Eugene, Co., Chicago, Ill.
Heinn Co., Milwaukee, Wis.
Master-Craft Corp.. Kalamazoo, Mich.
Remington Rand, Inc., Buffalo, N. Y.
Tait, A. A., Plainfield, N. J.

Bin Labels

(See "Labels, Bin")

Bins, Storage, Steel

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Angle Steel Stool Co., Plainwell, Mich.
Art Metal Construction Co., Jamestown, N. Y.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Chain Belt Co., Milwaukee, Wis.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis.
Edwards Mfg. Co., The, Cincinnati, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Heller, W. C., & Co., Montpelier, Ohio.
Ingalls Iron Works Co., The, Birmingham, Ala.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Warren, J. D., Mfg. Co., Montpelier, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bits, Auger

Cleveland Rock Drill Co., The, Cleveland, O.
Crescent Tool Co., Jamestown, N. Y.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Millers Falls Co., Greenfield, Mass.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.

Bits, Bobbin

Cleveland Twist Drill Co., The, Cleveland, Ohio.

Bits, Bonding

Alvord-Polk Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Standard Tool Co., The, Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

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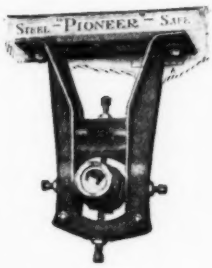

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Fig. 1334 "Hallowell" Steel Stool

Pat. Appl'd For

Fig. 1249 "Hallowell" Steel Stool

Fig. 1267 "Hallowell" with Swivel Wooden Seat and Foot Rest

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Fig. 232—"Unbrako" Hollow Set Screws stand up under punishment that wrecks other screws. Made of alloy steel, heat treated; therefore, tough yet hard, so points don't mushroom, hex doesn't round.

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Fig. 732—"Hallowell" Steel Work Bench, serviceable, outlasts wood; carried in stock for immediate shipment; inexpensive, fireproof. 1368 different sizes of "Hallowell" Steel Work Benches and Tables made. Full line of "Hallowell" Steel Bench Drawers—fireproof.

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Fig. 1434 — Knurled "Unbrako" Socket Head Cap Screw.
All mechanics use their fingers driving screws.
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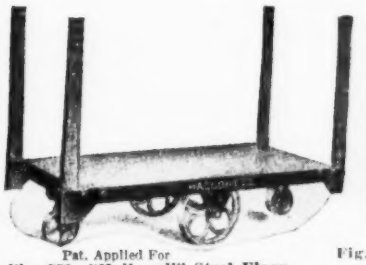

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Fig. 752—"Hallowell" Steel Floor Truck, tilting type; chassis a welded unit of steel; nothing to work loose and repair, so cost of maintenance practically nil.

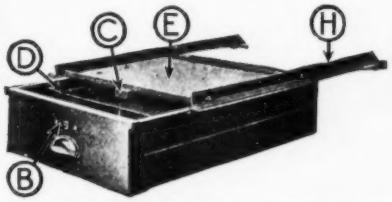

Fig. 1041—"Hallowell" Steel Bench Drawer for Steel Top Work-Benches and Tables
Without a Drawer the Bench is soon littered with tools and looks a mess and the first thing you know tools will be missing, time will be wasted, jobs delayed and profits reduced.

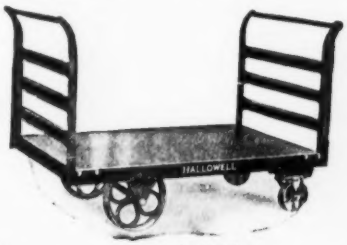

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Fig. 754—"Hallowell" Steel Floor Truck, non-tilting type; strong, smooth, one-piece top. Won't splinter; no nail heads or screws to tear and scratch.

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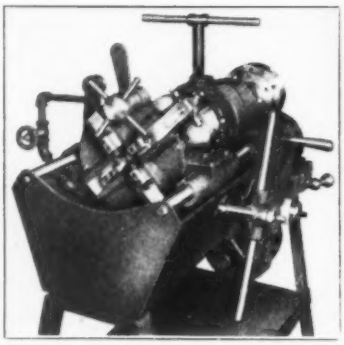

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TOOL HOLDER BITS

High Speed Steel and Super-Cobalt

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Irwin Auger Bit Co., Wilmington, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.

Bits, Countersink

American Swiss File & Tool Co., Elizabeth, N. J.
Butterfield & Co. (Division Union Twist Drill Co.), Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Crucible Steel Co. of America, New York.
Forest City Bit & Tool Co., Rockford, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Latrobe Tool Co., Latrobe, Pa.
Millers Falls Co., Greenfield, Mass.
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Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.

Bits, Expansive

Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.

Bits, Gimlet

Bernz, Otto, Co., Inc., Rochester, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Star Bit & Tool Co., Rockford, Ill.

Bits, Machine

American Chain Co., Inc., Bridgeport, Conn.
Cleveland Twist Drill Co., The, Cleveland, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Bits, Mining Machine

Cleveland Rock Drill Co., The, Cleveland, Ohio. (Drill bits)
Crucible Steel Co. of America, New York.
Ingersoll-Rand Co., New York, N. Y.
Leetonia Tool Co., The, Leetonia, Ohio.
McKay Co., The, Pittsburgh, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

Bits, Mortising, Common and Hollow

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Delta Mfg. Co., Milwaukee, Wis.
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Greenlee Bros. & Co., Rockford, Ill.
Star Bit & Tool Co., Rockford, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Bits, Rock

Cleveland Rock Drill Co., The, Cleveland, Ohio.
Crucible Steel Co. of America, New York.
Ingersoll-Rand Co., New York, N. Y.
Timken Roller Bearing Co., The, Canton, O.

Bits, Router

Delta Mfg. Co., Milwaukee, Wis.
Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Latrobe Tool Co., Latrobe, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Orum, S. R. M., Inc., Philadelphia, Pa.
Standard Tool Co., The, Cleveland, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Bits and Shanks, Saw

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Hoe, R., & Co., Inc., Bronx, New York.
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Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Bits, Screwdriver

(See "Screwdriver Bits")

Bits, Tool Holder

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Armstrong Bros. Tool Co., Chicago, Ill.
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Cowles Tool Co., Cleveland, Ohio.
Crucible Steel Co. of America, New York.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Frasse, Peter A., & Co., Inc., New York.
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Hubbard & Co., Pittsburgh, Pa.
Latrobe Tool Co., Latrobe, Pa.
Ludlum Steel Co., Watervliet, N. Y.
Marcy Tool Works, Inc., Putnam, Conn.
O. K. Tool Holder Co., The, Shelton, Conn.
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(See "Tools, Blacksmiths'" or specific item desired.)

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Gross Rubber Co., Sharon, Pa.
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Mine Safety Appliances Co., Pittsburgh.
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Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Republic Rubber Co., The, Youngstown, Ohio.

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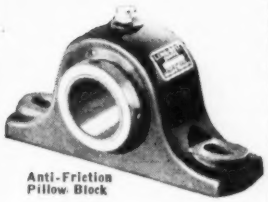
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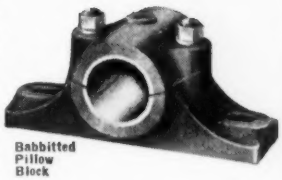
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Milton Manufacturing Co., The, Milton, Pa.
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Blasting Machines
(See "Machines, Blasting")

Blasts, Sand
(See "Sand Blast Machines and Equipment")

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Boston & Lockport Block Co., East Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
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Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Link-Belt Company, Chicago, Ill.
McMillan's, W. H., Sons, New York, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Round, David, and Son, Cleveland, Ohio.
Speidel Elevator Corp., Reading, Pa.
Union Manufacturing Co., New Britain, Conn.
Upson-Walton Co., The, Cleveland, Ohio.
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Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

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LaFrancis, A., Newark, N. J.
Stanley Rule & Level Plant, The, New Britain, Conn.

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Starrett, L. S., Co., The, Athol, Mass.
Union Twist Drill Co., Athol, Mass.

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American Hoist & Derrick Co., St. Paul.
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Johns-Manville, New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Ruberoid Co., The, New York, N. Y.

Blocks, Pillow
Ahlberg Bearing Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Bond Foundry and Machine Co., Manheim, Pa. (Including pedestal type)
Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.

(Continued on page 64)

CJB

PILLOW BLOCKS

Light
Medium
Standard
Heavy Duty

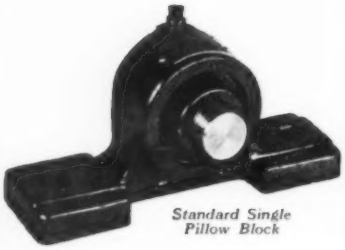
CJB Pillow Blocks incorporate noteworthy improvements found only in these well designed, modern and improved units. There is a size and capacity available for every application. Twenty-eight factory owned branch warehouses, each in charge of a competent sales engineer, are ready to serve you.

Write for our new loose leaf Pillow Block and Engineering Catalog and address of nearest branch.

AHLBERG BEARING COMPANY, 317 East Twenty-Ninth St., Chicago, Ill.

FAFNIR

PILLOW BLOCKS



Standard Single Pillow Block

Utilizing the Fafnir Wide Inner Ring Bearing as its chief feature, a very complete line of Ball Bearing Pillow Blocks is available from stock. These blocks are in wide use in many industries and have remarkable performance records to their credit.

Fafnir Pillow Blocks are made in the *single* bearing types and in the *double* bearing types, the latter having two Wide Inner Ring Bearings complete with driving collars and caps.

Both the single bearing blocks and double bearing blocks are made in the *Standard* and *Heavy* Series and are also available with *Dust-Seal Collars* incorporating extra dust seals or guards for conditions demanding them. The single block is also made in a *Light* Series, but without extra seals.

A large number of special types is also available for special mountings.

Get acquainted with our organization and service. No other bearing line offers greater profit potentials than FAFNIR — and can make more satisfied customers for you.

"THE MOST COMPLETE LINE OF BALL BEARINGS IN AMERICA"

THE FAFNIR BEARING CO.
New Britain Connecticut

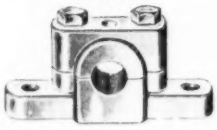
Branch Offices
Atlanta Chicago Cleveland Philadelphia
Dallas Detroit Kansas City Los Angeles
New York Seattle

FAFNIR

Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Shafer Bearing Corp., Chicago, Ill.

CHICAGO
PILLOW BLOCKS

CAST FROM THE BEST GRADE OF BABBITT



We manufacture and carry in stock a complete line of pillow blocks with bores from ¼" to 1¼".

Catalogue furnished on request.

CHICAGO DIE CASTING MFG. CO.
2510 W. Monroe St. CHICAGO, ILL.

Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Blocks, Snatch

American Hoist & Derrick Co., St. Paul.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston & Lockport Block Co., East Boston.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Edwards, H. D., & Co., Detroit. (Steel)
Hartz, H. V., Co., The, Cleveland, Ohio.
Leschen, A., & Sons Rope Co., St. Louis.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Upson-Walton Co., The, Cleveland, Ohio.
Western Block Co., Lockport, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.

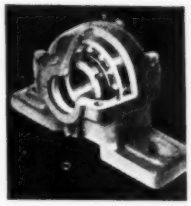
SKF
Puts the Right Bearing in the Right Place

MORE THAN 1200 TYPES AND SIZES

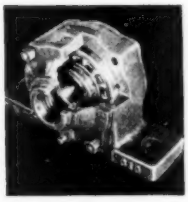
SKF makes practically all types of anti-friction bearings. When SKF recommends a particular type of bearing, therefore, you may depend upon it; its recommendations are unbiased!

Here's two of more than 12 types of SKF Pillow Blocks, and each type has a world-wide reputation for quality and performance. SKF will be glad to help you out, if you can't supply the *right* pillow block for the right place.

SKF INDUSTRIES, INC.
Front St. and Erie Ave. Philadelphia, Pa.



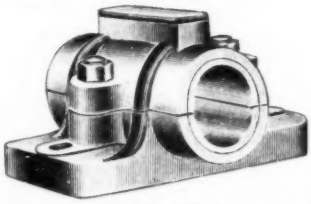
Split Pillow Block



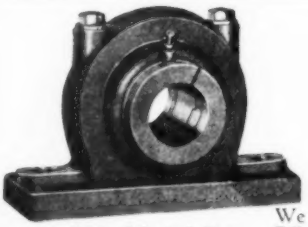
Universal Pillow Block

Pillowblocks

Ring- and wick-oiling; universal-adjustable and rigid; reamed babbitted bearings; all standard sizes.



Royersford Foundry & Machine Co., Inc.
ROYERSFORD, PA.



Hyatt Spherical Type

Light Pattern Common

Ring Oiling Rigid

PILLOW BLOCKS

We only illustrate a few of the Standard Types of Pillow Blocks we stock. Our line includes a very wide range of Rigid Ring Oiling, Collar and Wick Oiling; Plain in Light and Heavy Duty Styles, Adjustable and Spherical Types. Ask for our Catalog 831 showing this Line of Transmission that sells.

Catalog and engineering data available on request.

Sprout, Waldron & Co.
Muncy, Pa.

TACKLE BLOCKS

A COMPLETE LINE FOR USE WITH **WIRE ROPE** AND **MANILA ROPE**

SEND FOR CATALOG

The Upson-Walton Co.

1306 WEST 11TH ST., CLEVELAND, OHIO
Established 1871

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ELECTRIC CLEANERS

5 Powerful Models

There's a big market for these powerful Portable Electric Cleaners—they sell because IDEAL "3 in 1" units *answer* for all dust problems — they BLOW, VACUUM, SPRAY. To help you to sell your customers, all models are shipped on 5 Days' Free Trial. Get in on this—write for literature, prices and discounts.

IDEAL COMMUTATOR DRESSER CO.
1020 Park Avenue Sycamore, Illinois

SKILSAW BLOWERS

The safest, most convenient cleaning method for industry

Light, compact and easy to handle. Ball bearing construction throughout. Suction cleaning, spraying and other attachments available.

MADE IN FOUR MODELS—Write for information, prices and discounts

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American Foundry & Mfg. Co., St. Louis.
Noyes, B. B., Co., Greenfield, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Blocks, Tackle or Pulley

American Hoist & Derrick Co., St. Paul.
American Steel & Wire Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
Edwards, H. D., & Co., Detroit, Mich. (Steel tackle blocks)
Hartz, H. V., Co., The, Cleveland, Ohio.
Klein, M., & Son, Chicago, Ill.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Leschen, A., & Sons Rope Co., St. Louis.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Michigan Engine Valve Co., Detroit, Mich.
Perkins Marine Lamp & Hardware Corp., Brooklyn.
Roebling's, John A., Sons Co., Trenton, N. J.
Sargent & Co., New Haven, Conn.
Starline, Inc., Harvard, Ill.
Upson-Walton Co., The, Cleveland, Ohio.
Western Block Co., Lockport, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.

Blocks and Clamps, "V"

American Hoist & Derrick Co., St. Paul.
Brown & Sharpe Mfg. Co., Providence, R. I.
Standard Shop Equipment Co., Philadelphia, Pa.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Blow Pipes

(See Also "Pipes, Brazing and Blow")

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Boekel, Wm., & Co., Philadelphia, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Dockson, C. H., Co., Detroit, Mich.
Hammel, Riglander & Co., Inc., New York, N. Y.

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The Magazine for Distributors and Their Salesmen
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H. D. EDWARDS & CO.

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Imperial Brass Mfg. Co., Chicago.
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Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Modern Engineering Co., St. Louis, Mo.
Sight Feed Generator Co., Richmond, Ind.
Torit Manufacturing Co., St. Paul, Minn.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.

Blowers, Boiler Flue and Tube Cleaning

Allen & Billmyre Co., Inc., New York, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Electric Blower Co., Boston, Mass.
Hennebohle, Frank, Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Monarch Soot Remover Co., Inc., Boston.
Murray, William H., Brooklyn, N. Y.
Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Self Cleaning Strainer Co., Chicago, Ill.

Blowers, Draft, Steam Jet or Turbine

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Hennebohle, Frank, Chicago, Ill.
Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Sturtevant, B. F., Co., Hyde Park, Boston.

Blowers, Electric, Portable

Allen & Billmyre Co., Inc., New York.
Autovent Fan & Blower Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Clements Mfg. Co., Chicago, Ill.
Coppus Engineering Corp., Worcester, Mass.

"Marvel" Ball Bearing Portable Electric Blower

Model No. 2
$35.00
Reduced from $45.00

Sell Your Customers one on 10 DAYS FREE TRIAL

Keep their ELECTRIC MOTORS and WOOD-WORKING and OTHER MACHINERY free from dust, dirt, chips and sawdust, greatly reducing their motor troubles, wear and tear, and also the ever-present FIRE HAZARD.

Order one ON 10 DAYS TRIAL, and test it in their own plant. Give VOLTAGE of their Lighting Circuit.

We also make a larger size, Model No. 3, for $50.00, reduced from $60.00.

Vacuum Cleaner Attachments, $10.00 additional. In daily use in more than 8,000 industrial plants.

Also Portable Tank Vacuum Cleaners.

Electric Blower Company

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CLEAN

sales for You—
clean equipment for your customer
YOU BOTH PROFIT

when

CLEMENTS CADILLAC
Portable CLEANING and SPRAYING EQUIPMENT
goes into the Plant.

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Three models—**Model G**, Heavy Duty—**Model F**, General Duty—**Model AY**, Light Duty, convert instantly from Portable Blowers into Suction Cleaners or Sprayers. **Model L** is a Hot or Cold Air Blast Blower—indispensable in plants troubled with excess moisture in motor windings, delicate switchboards, etc.

Write for our free trial offer

Heavy Duty Model G

CLEMENTS MFG. CO.
6656 So. Narragansett Ave.
CHICAGO, ILL.

Davison Combustion Co., Pittsburgh, Pa.
Diehl Mfg. Co., Elizabethport, N. J.
Electric Blower Co., Boston, Mass.
General Electric Co., Schenectady, N. Y.
Ideal Commutator Dresser Co., Sycamore, Ill.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Ryerson, Joseph T., & Son, Inc., Chicago.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Blowers, Electric, Portable, Hand

Breuer Electric Manufacturing Co., Chicago, Ill.
Clements Mfg. Co., Chicago, Ill.
Electric Blower Co., Boston, Mass.
Ideal Commutator Dresser Co., Sycamore, Ill.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sturtevant, B. F., Co., Hyde Park, Boston.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Blowers, Forge

Buffalo Forge Co., Buffalo, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Champion Blower & Forge Co., Lancaster, Pa.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis, Minn.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
National Fan & Blower Corp., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.

Blowers, Furnace and Cupola

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Autovent Fan & Blower Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Clements Mfg. Co., Chicago, Ill.
Coppus Engineering Corp., Worcester, Mass.
De Laval Steam Turbine Co., Trenton, N. J.
Electric Blower Co., Boston, Mass.
Emerson Electric Mfg. Co., St. Louis, Mo.
Garden City Fan Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Leiman Bros., Inc., Newark, N. J. (Furnace only)
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
National Fan & Blower Corp., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.

Blowers, Gas and Oil Combustion

Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Coppus Engineering Corp., Worcester, Mass.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis, Minn.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Leiman Bros., Inc., Newark, N. J.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Sturtevant, B. F., Co., Boston, Mass.

Blowers, Hand

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Clements Mfg. Co., Chicago, Ill.
Standard Electric Tool Co., The, Cincinnati, Ohio.

Blowers, Heating

American Blower Corp., Detroit, Mich.
Autovent Fan & Blower Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Davison Combustion Co., Pittsburgh, Pa.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Ilg Electric Ventilating Co., Chicago, Ill.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Modine Mfg. Co., Racine, Wis.
National Fan & Blower Corp., Chicago, Ill
Roots-Connersville Blower Corp., Connersville, Ind.

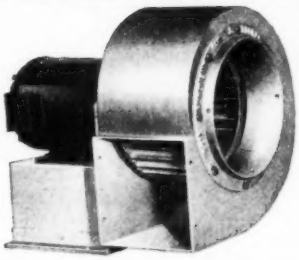
Blowers, Positive

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Blower Corp., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Davison Combustion Co., Pittsburgh, Pa.
Diehl Mfg. Co., Elizabethport, N. J.
Garden City Fan Co., Chicago, Ill.
Ilg Electric Ventilating Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Leiman Bros., Inc., Newark, N. J.
Miller Tool & Mfg. Co., Inc., Detroit.
Roots-Connersville Blower Corp., Connersville, Ind.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corp., Los Angeles, Calif.

Blowers, Pressure

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Asch & Company, Inc., New York, N. Y. (For car drying)
Autovent Fan & Blower Co., Chicago, Ill.
Baker-Hansen Mfg. Co., Alameda, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Davison Combustion Co., Pittsburgh, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
Diehl Mfg. Co., Elizabethport, N. J.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Ilg Electric Ventilating Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Leiman Bros., Inc., Newark, N. J.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
National Fan & Blower Corp., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Ruemelin Mfg. Co., Milwaukee, Wis.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corp., Los Angeles, Calif.

AUTOVENT UNIBLADE VOLUME BLOWERS



• Motor driven — universal discharge, designed for fume hoods, chemical labs, processing, drying, forced draft, etc., designed for handling low volumes of air at medium pressures. Wheels range from 6 inches to 11 inches diameter—of same design as heavy duty blowers. Can be mounted on floor, wall or ceiling. Direct Connected Blowers for general ventilating applications are available in wheel diameters up to 25 inches. Write for bulletin No. 300.

Belt Driven Blowers with Forwardly Curved or Backwardly Inclined Blades

• Primarily designed for duct installations—Ideal for elimination of foul air, fumes, gases, vapors or excessive heat and steam. Arranged for flat or V-Belt drive or direct connected service. Strong, rigid steel angle braced construction. Quiet operation. Sizes 12½" to 75" wheel diameters. All units arranged in accordance with job requirements. Write for bulletins Nos. 301 and 302.

AUTOVENT FAN & BLOWER CO.
1807-23 N. Kostner Ave., Chicago, Illinois

Blowers—Saw Dust, Shavings, Etc.

(See "Collectors, Exhausters [or Blower Systems], for Shavings and Dust")

Blowers, Soot

Bate Boiler Efficiency Co., Conshohocken, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Hennebohle, Frank, Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Monarch Soot Remover Co., Inc., Boston.
Murray, William H., Brooklyn, N. Y.
Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.

Blowers, Ventilating

American Blower Corp., Detroit, Mich.
American Propeller Co., The, South Bend, Ind.
Autovent Fan & Blower Co., Chicago, Ill.
Bendix Products Corporation, South Bend, Ind.
Binks Manufacturing Co., Chicago, Ill.
Bishop & Babcock Sales Co., Cleveland.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Coppus Engineering Corp., Worcester, Mass.
Diehl Mfg. Co., Elizabethport, N. J.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Hartzell Propeller Fan Co., Piqua, Ohio.
Ilg Electric Ventilating Co., Chicago, Ill.
Meier Electric & Machine Co., The, Indianapolis, Ind.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
National Fan & Blower Corp., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Schutte & Koerting Co., Philadelphia, Pa.
Sturtevant, B. F., Co., Hyde Park, Boston.
Victor Electric Products, Inc., Cincinnati, Ohio.

Board, Stencil, Oiled

Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.

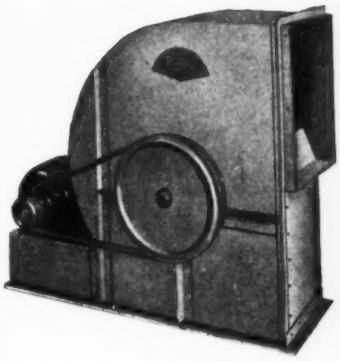
Boards, Asbestos

(See "Millboard, Asbestos")

Boards, Fibre

Armstrong Cork Products Co., Lancaster, Pa.
Continental-Diamond Fibre Co., Newark, Del.
Rockwood Mfg. Co., Indianapolis, Ind.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Union Fibre Sales Co., Winona, Minn.

AUTOVENT "V" Belt Drive UNIT BLOWERS



● Fan design is of forwardly curved blade type with smooth air flow and quiet bearings. The motor is mounted on a steel pedestal, built integral with blower housing, making a compact unit, assuring ease of installation and flexibility of control. Air delivery can be decreased or increased as desired. All motors are of standard frame sizes—so that if it is necessary to interchange motors, due to alteration in current characteristic or break-down, it can be quickly accomplished preventing delays. Sturdily constructed of sheet steel with rolled lock seams keeping blowers dust tight. Write for bulletin No. 300.

AUTOVENT FAN & BLOWER CO.
1807-23 N. Kostner Ave., Chicago, Illinois

Boards, Glass Cutting

Lufkin Rule Co., The, Saginaw, Mich.

Boiler Feeders, Water

(See "Feeders, Boiler, Water")

Boiler Mountings

(See "Plugs, Fusible," "Columns, Water," "Cocks, Gauge," "Valves, Blowoff," "Blowers, Soot," etc.)

Boiler Nozzles

(See "Nozzles, Boiler")

Boiler Tubes

(See "Tubes, Boiler")

Boilers, Range

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Radiator Co., New York, N. Y.
Bastian-Morley Co., La Porte, Ind.
Crane Co., Chicago, Ill.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Wheeling Steel Corp., Wheeling, W. Va.

Bolt and Cap Screw Threading Machines

(See "Machines, Threading, Bolt and Cap Screw")

Bolt, Nut and Rivet Machinery

(See "Bulldozers," "Clippers—Bolt, Rivet and Wire," "Dies," "Facers, Nut," "Headers and Reheaders, Bolt," "Heads, Die," "Machines, Tapping," etc.)

Bolts, Barrel

Berry Brothers, Columbus, Ohio.
Boss Bolt & Nut Co., Chicago, Ill.
California Screw Co., San Francisco, Calif.
Cleveland Cap Screw Co., The, Cleveland.
Elco Tool & Screw Corp., Rockford, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Blank

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
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Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Smith, Thomas, Co., Worcester, Mass.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Boiler Patch

Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Everitt Co., The, Boston, Mass.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Boiler Stay

Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Flannery Bolt Co., Pittsburgh, Pa.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Maryland Bolt & Nut Co., The, Baltimore.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts—Brass, Bronze and Copper

Atlas Bolt & Screw Co., The, Cleveland, O.
Atlas Brass Foundry, Los Angeles, Calif.
Brooks, M. S., & Sons, Inc., Chester, Conn.
California Screw Co., San Francisco, Calif.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., The, Cleveland.
Elco Tool & Screw Corp., Rockford, Ill.
Harper, H. M., Co., Chicago, Ill.
Harris, Arthur, & Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Messmer Brass Co., St. Louis, Mo.
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Republic Steel Corp., Cleveland, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Stanley Works, The, New Britain, Conn.
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United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Bridge and Roof

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
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Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Carriage

Atlas Bolt & Screw Co., The, Cleveland, O.
Automatic Nut Co., Lebanon, Pa.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., The, Cleveland.
Columbus Bolt Works Co., The, Columbus, Ohio.
Continental Screw Co., New Bedford, Mass.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
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Smith, Thomas, Co., Worcester, Mass.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wasmer Bolt & Nut Co., The, Cleveland, O.

Bolts, Chain

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent & Co., New Haven, Conn.
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Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bolts, Collar

Atlas Bolt & Screw Co., The, Cleveland.
Berry Brothers, Columbus, Ohio.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Everitt Co., The, Boston, Mass.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Connecting Rod

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Monarch Cap Screw & Mfg. Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland, Ohio.
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Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
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California Screw Co., San Francisco, Calif.
Chicago Expansion Bolt Co., Chicago, Ill.
Columbus Bolt Works Co., The, Columbus, Ohio.
Everitt Co., The, Boston, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Malleable Iron Works, Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Lead Co., New York, N. Y.
National Screw & Mfg. Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Rawlplug Co., Inc., New York, N. Y.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Countersunk

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
United Screw & Bolt Corp., Cleveland, O.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Coupling

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Huron Industries, Inc., Alpena, Mich.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Drift

Atlas Bolt & Screw Co., The, Cleveland, O.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Columbus Bolt Works Co., The, Columbus, Ohio.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Elevator Bucket

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland, O.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Jeffrey Manufacturing Co., Columbus, O.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Link-Belt Co., Chicago, Ill.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bolts, Expansion

Arguto Oilless Bearing Co., Philadelphia.
Arro Expansion Bolt Co., Marion, Ohio.
Boss Bolt & Nut Co., Chicago, Ill.
Brohard Co., The, Philadelphia, Pa.
California Screw Co., San Francisco, Calif.
Chicago Expansion Bolt Co., Chicago, Ill.
Cleveland Wrought Screw and Bolt Corp.), Cleveland, Ohio.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Kempton Manufacturing Corp., The, New York, N. Y.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Modern Mfg. Co., The, Cleveland, Ohio.
National Lead Co., New York, N. Y.
Newhall Chain Forge & Iron Co., New York.
Rawlplug Co., Inc., The, New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Ryerson, Joseph T., & Son, Inc., Chicago.
Star Expansion Bolt Co., New York, N. Y.
U. S. Expansion Bolt Co., New York, N. Y.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

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Brooks, M. S., & Sons, Inc., Chester, Conn.
Buckeye Forging Co., The, Cleveland, Ohio.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Cal.
Chicago Expansion Bolt Co., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hodell Chain Co., The, Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Laughlin, Thomas Co., Portland, Maine.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Mockbee, C. M., Co., Cincinnati, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Newhall Chain Forge & Iron Co., New York.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.
Williams, J. H., & Co., New York, N. Y.

Bolts, Flexible

California Screw Co., San Francisco, Cal.
Flannery Bolt Co., Pittsburgh, Pa.
Maryland Bolt & Nut Co., The, Baltimore.

Bolts, Foot

Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Cal.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Starline, Inc., Harvard, Ill.

Bolts, Galvanized

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Federal Screw Works, Detroit, Mich.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Bolts, Hanger

Atlas Bolt & Screw Co., The, Cleveland, O.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.

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Champion Manufacturing Co., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Continental Screw Co., New Bedford, Mass.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Modern Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co. Port Chester, N. Y.
Sargent & Co., New Haven, Conn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bolts, Lag

(See "Bolts, Coach and Lag")

Bolts, Machine

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co.,The, Cleveland, O.
Automatic Nut Co., Lebanon, Pa.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Cal.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Crane Co., Chicago, Ill.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Mockbee, C. M., Co., Cincinnati, Ohio. (Large size and special)
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
New England Screw Co., Boston, Mass.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Smith, Thomas, Co., Worcester, Mass.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wasmer Bolt & Nut Co., The, Cleveland.

Bolts, Monel Metal

Atlas Bolt & Screw Co., The, Cleveland, Ohio. (Also monel screws)
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
International Nickel Co., Inc., The, New York, N. Y.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.

Bolts, Planer Head

Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Cleveland Cap Screw Co., The, Cleveland, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Republic Steel Corp., Cleveland, Ohio.
Sheldon Machine Co., Chicago, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Plow

Atlas Bolt & Screw Co., The, Cleveland, O.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Self-Tapping—Patch, Repair

Parker-Kalon Corp., New York, N. Y.

Bolts, Shackle

Acme Machine Products Co., Muncie, Ind.
Aluminum Industries, Inc., Cincinnati, O.
Berry Brothers, Columbus, Ohio.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.

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Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Bolts—Sink, Stove and Tire

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Arguto Oilless Bearing Co., Philadelphia.
Atlas Bolt & Screw Co., The, Cleveland, O.
Berry Brothers, Columbus, Ohio.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
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Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
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Reed & Prince Mfg. Co., Worcester, Mass.
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Ryerson, Joseph T., & Son, Inc., Chicago.
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Swett, A. L., Iron Works, Medina, N. Y.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Spring

Aluminum Industries, Inc., Cincinnati, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sargent & Co., New Haven, Conn.
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United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Stay

(See "Stay Bolts")

Bolts, Step

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Berry Bros., Columbus, Ohio.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Continental Screw Co., New Bedford, Mass.
Elco Tool & Screw Corp., Rockford, Ill.
Federal Screw Works, Detroit, Mich.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.

Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
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Bolts, Stripper

(See "Screws, Shoulder, Socket Head")

Bolts, Stud

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Neely Nut & Bolt Co., Pittsburgh, Pa.
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Republic Steel Corp., Cleveland, Ohio.
Smith, Thomas, Co., Worcester, Mass.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Tap

Armstrong Manufacturing Co., Bridgeport, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
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Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
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Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Toggle

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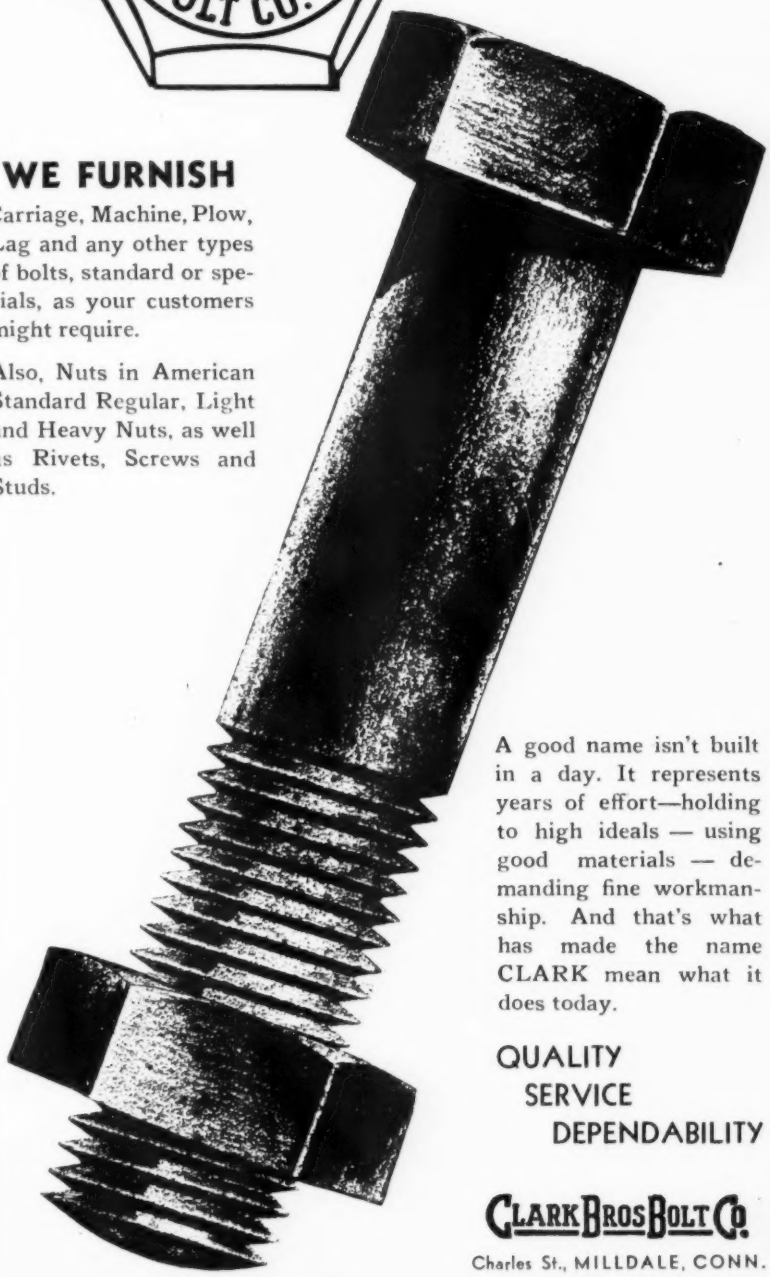

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Wood's, T. B., Sons Co., Chambersburg, Pa.

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Boxes, Oily Waste

(See "Cans or Boxes, Oily Waste")

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Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
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Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.

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Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Pyott Foundry & Machine Co., Chicago, Ill.
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Bonney Forge & Tool Works, Allentown, Pa.
Cleveland Wire Spring Co., The, Cleveland, Ohio.
Gerstner, H., & Sons, Dayton, Ohio.
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Stevens, Walden, Inc., Worcester, Mass.

Boxes, Tool, Fireproof

Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Detroit Metal Spinning Co., Inc., Detroit, Mich.
Littleford Bros., Cincinnati, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Nye Tool & Machine Works, The, Chicago.
Outing Manufacturing Co., Inc., Elkhart, Ind.
Pollard Bros. Mfg. Co., Chicago, Ill.
Stevens, Walden, Inc., Worcester, Mass.
Toledo Pressed Steel Co., The, Toledo, Ohio.
Truscon Steel Co., Youngstown, Ohio.

Boxes, Valve

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
Vogt Brothers Mfg. Co., Louisville, Ky.

Braces, Bit

Bernz, Otto, Co., Inc., Rochester, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Stanley Rule & Level Plant, New Britain, Conn.

Braces, Bit, Angular and Corner

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.

Braces, Rail

Bethlehem Steel Co., Bethlehem, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.

Braces, Trench and Timber

Channon, J. H., Corp., Chicago, Ill.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Swett, A. L., Iron Works, Medina, N. Y.
Templeton, Kenly & Co., Chicago.

Brackets, Fire Axe

Allen, W. D., Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Brackets, Fire Extinguisher Pump and Fire Bucket

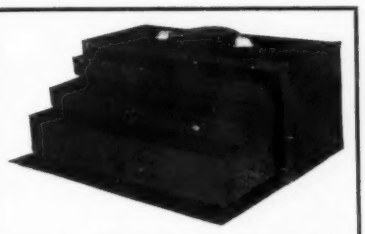
Allen, W. D., Mfg. Co., Chicago, Ill.
American-La France and Foamite Corp., Elmira, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Brackets, I-Beam

(See "Clamps and Brackets, Beam or Girder")

Brackets and Supports, Pipe

Brunswick-Kroeschell Co., New Brunswick, N. J.
Clow, James B., & Sons, Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Modern Mfg. Co., The, Cleveland, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio. (Supports)
Walworth Co., New York, N. Y.



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Brackets, Scaffolding

Patent Scaffolding Co., The, Chicago, Ill.
Richards-Wilcox Mfg. Co., Aurora, Ill.

Brackets, Shelf

Atlas-Ansonia Co., New Haven, Conn.
Heller, W. C., & Co., Montpelier, Ohio.
Market Forge Co., Everett, Mass.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Swett, A. L., Iron Works, Medina, N. Y.
Warren, J. D., Mfg. Co., Montpelier, Ohio.

Brackets, Wall, Power Transmission

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Brads, Wire

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.

Brakes, Bending, Steel

Farrel-Birmingham Co., Inc., Ansonia, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.

Brakes, Press

Farrel-Birmingham Co., Inc., Ansonia, Conn.
Miley, L. J., Co., Inc., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

Brakes, Truck, Hand

Advance Car Mover Co., Inc., Appleton, Wis.
American Chain Co., Inc., Bridgeport, Conn.
Miley, L. J., Co., Inc., Chicago, Ill.
Nutting Truck Co., Faribault, Minn.
Safety Truck Brake Co., Inc., Appleton, Wis.

Brands, Burning

Bernz, Otto, Co., Inc., Rochester, N. Y. (Gas and kerosene)
Burning Brand Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Electric Soldering Iron Co., New York.
Everhot Mfg. Co., Maywood, Ill.
Hexagon Electric Appliance Corp., Roselle Park, N. J.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.

Brass Rods, Bars and Sheets

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Anaconda Wire & Cable Co., New York.
Bristol Brass Corp., The, Bristol, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metal Corporation, Detroit, Mich.
Federated Metals Corp., New York, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich. (Rods and bars)
National Copper & Smelting Co., Cleveland, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Revere Copper and Brass, Inc., Rome Division, Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

Brattice Cloth

(See "Cloth, Brattice")

Brazing Compounds

(See "Compounds and Fluxes, Brazing")

Brazing Machines

(See "Machines, Brazing, Kerosene and Gasoline")

Brazers, Band Saw, Electric

Covel-Hanchett Co., Big Rapids, Mich.
Oliver Machinery Co., Grand Rapids, Mich.

Brazing Tools

(See "Tools, Brazing")

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Bethlehem Steel Co., Bethlehem, Pa.
Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland, Ohio. (Pavement only)
Vulcan Tool Mfg. Co., Quincy, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Breakers, Vacuum

Penberthy Injector Co., Detroit, Mich.

Brick, Acid Proof

Harbison-Walker Refractories Co., Pittsburgh, Pa.
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Green, A. P., Fire Brick Co., Mexico, Mo.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
North American Refractories Co., Cleveland, Ohio.
Quigley Company, Inc., New York, N. Y.

Brick, Fire Insulating

Armstrong Cork Products Co., Lancaster, Pa.
Babcock & Wilcox, New York, N. Y.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Johns-Manville, New York, N. Y.
Quigley Company, Inc., New York, N. Y.

Brick, Insulating

Armstrong Cork Products Co., Lancaster, Pa.
Babcock & Wilcox, New York, N. Y.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Johns-Manville, New York, N. Y.
Quigley Company, Inc., New York, N. Y.

Brick, Insulating, Refractory

Armstrong Cork Products Co., Lancaster, Pa.
Babcock & Wilcox, New York, N. Y.
Carey, Phillip, Co., The, Lockland, Ohio.
Green, A. P., Fire Brick Co., Mexico, Mo.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Quigley Company, Inc., New York, N. Y.

Bricklayers' Sets

(See "Sets, Bricklayers' ")

Bricks and Sticks, Abrasive

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
American Emery & Stone Co., New York.
Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
Carborundum Co., The, Hutto Machine Division, Detroit, Mich. (Abrasive honing sticks.)
Carborundum Co., The, Niagara Falls, N.Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Harrison & Co., Haverhill, Mass.
Norton Co., Worcester, Mass.
Peninsular Grinding Wheel Co., Detroit, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Vitrified Wheel Co., Westfield, Mass.
Waltham Grinding Wheel Co., Waltham, Mass.

Bricks, Rubbing

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Norton Co., Worcester, Mass.
Peninsular Grinding Wheel Co., Detroit, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.

Broaches

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Hammel, Riglander & Co., Inc., Importers, New York, N. Y.
Illinois Tool Works, Chicago, Ill.
Scully-Jones & Co., Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Broaching Machines

(See "Machines, Broaching")

Bronze Bars, Cored and Solid

(See "Bars, Bronze, Cored and Solid")

Bronze, Castings or Ingots, Aluminum, Manganese and Phosphor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Aluminum Industries, Inc., Cincinnati, O.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Injector Co., Detroit, Mich.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Atlas Brass Foundry, Los Angeles, Calif.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bristol Brass Corp., The, Bristol, Conn. (Phosphor only)
Bunting Brass & Bronze Co., Toledo, Ohio.
Consolidated Metal Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton, Ohio.
Farnan Brass Works Co., The, Cleveland, Ohio.
Federated Metals Corp., New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Fredericksen Co., Saginaw, Mich.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Johnson Bronze Co., New Castle, Pa.
Messmer Brass Co., St. Louis, Mo.
Moccasin Bushing Co., Chattanooga, Tenn.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.

Bronze Rods, Bars and Sheets, Rolled

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Anaconda Wire & Cable Co., New York.
Bristol Brass Corp., The, Bristol, Conn.
Buckeye Brass & Mfg. Co., The, Cleveland, Ohio.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metal Corp., Detroit, Mich.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Revere Copper and Brass, Inc., Rome Division, Rome, N. Y.

Brooms and Brushes, Factory or Warehouse

Deshler Broom Factory, The, Deshler, Neb.
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Hamburg Broom Works, Hamburg, Pa.

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Osborn Manufacturing Co., The, Cleveland, Ohio.
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Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms, Fibre, Upright

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Lay, Joseph, Co., The, Portland, Ind.
Milwaukee Brush Mfg. Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brooms, Hide

Deshler Broom Factory, The, Deshler, Neb.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph Co., The, Portland, Ind.

Osborn Manufacturing Co., The, Cleveland, Ohio.
Warner, W. E., & Co., New York, N. Y.

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Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Littleford Bros., Cincinnati, Ohio.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

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Deshler Broom Factory, The, Deshler, Neb.
Hamburg Broom Works, Hamburg, Pa.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
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Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland, Ohio.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms, Whisk

Deshler Broom Factory, The, Deshler, Neb.
Hamburg Broom Works, Hamburg, Pa.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Merkle Broom Co., Paris, Ill.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Osborn Manufacturing Co., The, Cleveland.
Southwestern Broom Mfg. Co., The, Evansville, Ind.

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Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Littleford Bros., Cincinnati, Ohio.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Acid or Lime, Masons'

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Mason Brush Works, Worcester, Mass.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

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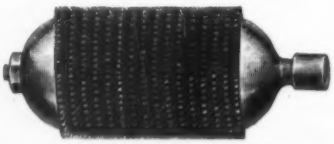

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Brushes, Air, Spray Painting

(See "Air Brushes, Spray Painting")

Brushes and Belting, Sifter Brush

(See "Sifter Brush Belting and Brushes")

Brushes, Bench and Counter

Deshler Broom Factory, The, Deshler, Neb.
Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Buffing

Elder & Jenks, Philadelphia, Pa.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Key Co., E. St. Louis, Ill.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Warner, W. E., & Co., New York, N. Y.

Brushes, Calcimine

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Carbon Removing

Black & Decker Mfg. Co., The, Towson, Md.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Ohio Carbon Co., The, Cleveland, Ohio.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Casting

(See "Brushes, Foundry")

Brushes, Closet Bowl

Gerts, Lumbard & Co., Chicago, Ill.
Kendallville Brush & Broom Co., Kendallville, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Washburn Co., The, Worcester, Mass.

Brushes, Deck Scrubbing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brushes, Factory

(See "Brooms and Brushes, Factory or Warehouse")

Brushes and Cards, File Cleaning

Cincinnati Tool Co., Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Nicholson File Co., Providence, R. I.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes, Floor

Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Mason Brush Works, Worcester, Mass.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Floor Polishing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brushes, Flue, Boiler and Furnace

Advance Packing & Supply Co., Chicago.
Chesterton, A. W., Co., Boston, Mass.
Kendallville Brush & Broom Co., Kendallville, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.
Wilson, Thomas C., Inc., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Foundry

Advance Packing & Supply Co., Chicago, Ill.
Elder & Jenks, Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Gerts, Lumbard & Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Mason Brush Works, Worcester, Mass.
Manufacturers Brush Co., The, Cleveland.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Spear Carbon Co., St. Marys, Ohio.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Glue

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers' Belt Hook Co., Chicago.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Schieren, Chas. A., Co., New York, N. Y.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Lacquering

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Loom and Comber

Elder & Jenks, Philadelphia, Pa.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Molders'

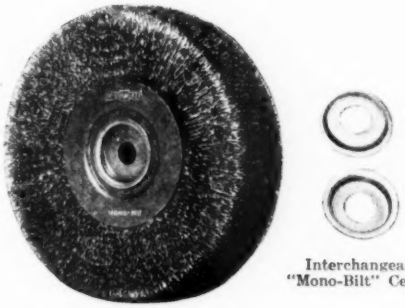
(See "Brushes, Foundry")

TRADE MILWAUKEE MARK

WIRE WHEEL AND END BRUSHES

For Cleaning, Buffing, Polishing, Grinding, etc.

"MONO-BILT" WIRE WHEEL BRUSHES
(Interchangeable Centers)



Interchangeable "Mono-Bilt" Centers

"Mono-Bilt" Wire Wheel Brushes are made of specially drawn, thoroughly crimped wire intermingled into a brush of exceptional strength and durability. A complete all metal unit—evenly balanced to eliminate vibration—which can be mounted directly on the shaft.

Interchangeable Centers with arbor hole sizes ranging from ½ to 1½ inches are regularly furnished for 6, 8, 10, and 12 inch diameter Mono-Bilt Wire Wheel Brushes.

Four-inch diameter brushes are usually made to fit directly on the shaft without the use of Interchangeable Centers. Arbor hole sizes range from ¼ to 1-inch, of which the ½ inch size is the most popular. If desired, these brushes can be supplied with ⅜ or ½ inch Interchangeable Centers at no extra charge.

"MONO-BILT" WHEELS (Standard)

No.	Diameter	Thickness	W. & M. gauge wire	Weight, each	List, each
101	12 in.	2 in.	33	8 lbs.	**$8.50**
102	10 in.	2 in.	33	7 lbs.	**7.00**
103	8 in.	1⅜ in.	33	3½ lbs.	**5.00**
105	6 in.	1⅜ in.	33	2½ lbs.	**3.75**
107	4 in.	¾ in.	33	¾ lb.	**2.25**

"MONO-BILT" WHEELS (Narrow Face)

123	8 in.	1 in.	33	2½ lbs.	**$4.00**
125	6 in.	1 in.	33	2 lbs.	**3.00**
127	4 in.	⅝ in.	33	½ lb.	**2.00**

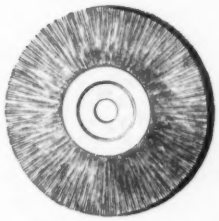
List prices include one pair of Interchangeable Centers.

	List per pair
Extra pairs of centers for 6-inch diameter and larger wheels	**$0.25**
Extra pairs of centers for 4-inch diameter wheels	.18

When ordering, please state size of arbor hole.

"STEEL CLAD" WIRE WHEEL BRUSHES
Steel Center

Each Brush is a Complete Unit



Can Be Mounted Directly on Shaft

"Steel Clad" Wire Wheel Brushes or Sections eliminate the necessity of hubs. They can be used singly, or in assemblies of any number desired.

No.	Diam.	Width of face	W. & M. gauge wire	Weight each	List each
130	15 in.	½ in.	30	1¾ lbs.	**$1.50**
131	12 in.	½ in.	30	1¼ lbs.	**1.35**
132	10 in.	½ in.	30	1 lb.	**1.20**
133	8 in.	½ in.	33	¾ lb.	**.90**
135	6 in.	⅜ in.	33	½ lb.	**.80**
136	5 in.	⅜ in.	33	⅜ lb.	**.70**
137	4 in.	⅜ in.	33	¼ lb.	**.65**
138	3 in.	⅜ in.	33	⅛ lb.	**.55**

When ordering, please state size of arbor hole.

STEEL WIRE CUP BRUSH

The wire is coarse and heavy to withstand the severe strain to which brush is subjected. This brush is especially designed for removing old paint, scale, rust, etc., from large metal surfaces.

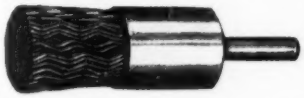
Length of wire 1⅝ in.

Diameter of brushing surface 6¼ in.

No.	Size of Wire	Weight each	List each
3335	.032	2¾ lbs.	**$4.50**

When ordering, please state size of arbor hole.

CARBON REMOVING BRUSH



No. 3319—⅞-inch diameter ferrule; ¼-inch diameter steel shank. Length of wire 1 inch. Length overall 3¾ inches. Weight, each, ¼ lb. List, each.....**$1.75**

Any of the brushes listed above can be made of coarser or finer wire if desired.

List Prices Indicate Relative Values

Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

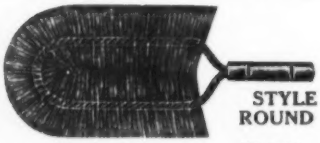
QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

TRADE MILWAUKEE MARK

STEEL WIRE FLUE BRUSHES

STYLE A—ROUND WIRE

No.	Brush part, inches	Weight per 100	List per 100
1900	1⅝x4 x4½	50 lbs.	$ 75.00
1901	2½x6 x4½	75 lbs.	125.00
1902	3½x6⅝x4½	88 lbs.	150.00



STYLE B—ROUND WIRE

No.	Brush part, inches	Weight per 100	List per 100
1903	1¾x4x5½	75 lbs.	$90.00

STYLE M—FLAT WIRE (Oval)

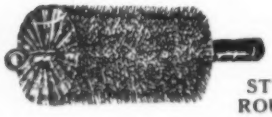
No.	Brush part, inches	Weight per 100	List per 100
3017	2 x3¼x4	50 lbs.	$ 60.00
3051	2 x4 x4	60 lbs.	70.00
3252	1⅝x3¼x4	37 lbs.	60.00
3253	2 x3¾x5	62 lbs.	75.00
3254	2¾x4½x6	75 lbs.	90.00
3255	2¾x6¾x6¾	137 lbs.	200.00

STYLE D—ROUND WIRE (Rectangular)

No.	Brush part, inches	Weight per 100	List per 100
1915	2x4x4½	50 lbs.	$125.00
1916	3x5x4½	62 lbs.	150.00

STYLE S—FLAT WIRE—SINGLE SPIRAL

No.	Length of brush part, inches	For flue sizes, inches	Weight per 100 (3" size)	List per inch diameter
1950	4½	1 to 6	50 lbs.	$0.25



STYLE W—ROUND WIRE

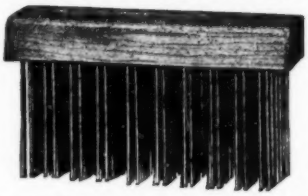
No.	Length of brush part, inches	For flue sizes, inches	Weight per 100 (3" size)	List per inch diameter
1953	4½	1 to 6	44 lbs.	$0.25

ROUND STEEL WIRE—SINGLE SPIRAL

Brush Part 4½ Inches Long

No.	Diameter of brush, inches	Length of handle, inches	Weight per 100	List per 100
914	3	48	60 lbs.	$50.00
916	4	48	64 lbs.	55.00
918	5	48	72 lbs.	60.00
924	3	60	68 lbs.	55.00
926	4	60	72 lbs.	60.00
928	5	60	80 lbs.	65.00

FOUNDRY BRUSHES



PLAIN CASTING BRUSHES—FLAT WIRE

No.	Rows	Length of wire, inches	Size of block, inches	Weight per gross	List per gross
1731	4x10	3	7¾x2¼	120 lbs.	$50.00
1732	4x10	4	7¾x2¼	135 lbs.	60.50
1734	5x10	2	7¾x2⅝	128 lbs.	49.00
1736	5x10	3	7¾x2⅝	144 lbs.	60.50
1737	5x10	4	7¾x2⅝	160 lbs.	68.50

Shipped in bulk.

PLATERS' BRUSHES

Plain Finished Hardwood Solid Block. Staple set.
Length of Brush part 5½ inches. Length overall 12 inches. Length of stock 1-inch.

Selected White Tampico

No.	Rows	Width of block	Weight per gross	List per gross
1393	3	⅞ in.	34 lbs.	$36.00
1394	4	1¼ in.	45 lbs.	40.00

Stiff Black Chinese Bristle

No.	Rows	Width of block	Weight per gross	List per gross
2003	3	⅞ in.	26 lbs.	$72.00
2004	4	1¼ in.	31 lbs.	90.00

Nos. 1393, 2003 and 2004 packed 1 dozen in carton.
No. 1394 packed 6 dozen in carton.

Plain Finished Hardwood Solid Block. Staple set.
Length of Brush part 5 inches. Length overall 10 inches. Length of stock 1-inch.

Four Rows

No.	Stock	Width of block	Weight per gross	List per gross
1380	Grey Tampico Fibre	1 in.	42 lbs.	$45.00
1381	Black Chinese Bristle	1 in.	39 lbs.	90.00

Packed 1 dozen in carton.

List Prices Indicate Relative Values

Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2216 NORTH 10TH STREET MILWAUKEE, WISCONSIN

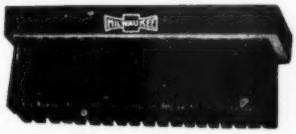
QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

TRADE MILWAUKEE MARK

WIRE CLEANING BRUSHES

Round Steel Wire Hand Brushes

MILWAUKEE Wire Brushes are made of best quality specially tempered fine carbon steel wire. They are built to exacting standards of uniformity and rigidly inspected before leaving our factory. The blocks are well filled—wires evenly trimmed, and securely fastened in carefully selected thoroly seasoned hardwood blocks. Every brush is a carefully balanced, efficient tool.



STRAIGHT BACK—SOLID BLOCK

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1611	7¼x2¼	6x19	1¾	115 lbs.	$54.00

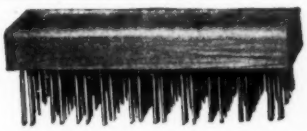
For general use in removing paint, varnish, rust, grease, etc. Takes the place of sandpaper, steel wool and similar abrasives. Works faster and is more effective. Packed 1 dozen in carton.

LONG HANDLE SOLID BLOCK

Length of Brush part 6¼ inches.

No.	Rows	Length overall, inches	Length of wire, inches	Weight per gross	List per gross
1651	3x19	14	1¼	68 lbs.	$37.50
1656	4x19	14	1¼	78 lbs.	49.00

No. 1651 extensively used in auto repair shops and garages. No. 1656 designed for Braziers' finishing work. Packed 1 dozen in carton.



FLAT STEEL WIRE BRUSHES

Solid Hardwood Block
Block 7¾x2⅝ inches.

No.	Rows	Length of wire, inches	Weight per gross	List per gross
1801	5x10	1¼	120 lbs.	$43.50
1802	5x10	1½	125 lbs.	45.00

In addition to cleaning butchers' blocks, these brushes are used for cleaning stone and brick surfaces and structural iron work.

CURVED BACK—SOLID BLOCK

No.	Inches	Rows	Length of wire, inches	Weight per gross	List per gross
1632	7⅛x2⅞	9x21	1¼	120 lbs.	$81.00

Heavily filled brushes with rocker faces. Very effective for removing varnish, and cleaning wood or metal surfaces preparatory to refinishing. Packed 1 dozen in carton.

WIRE DUSTER SOLID BLOCK

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1661	2¾x1⅛	4x8	2⅜	45 lbs.	$54.00

Very effective for removing dirt and other accumulations between boards in old soft wood floors. Especially adapted for use on mouldings, baseboards, etc. Popular among mechanics for brushing chips and borings from machines. Packed 1 dozen in carton.

SHOE HANDLE SOLID BLOCK

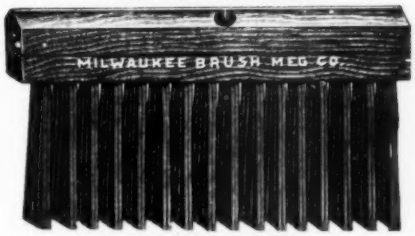
Length of Brush part 5 inches.

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1646	⅝x10	2	1¼	38 lbs.	$43.50
1641	1x10	4	1⅛	60 lbs.	46.50

Especially designed for use in places inaccessible to larger and wider brushes. Also suitable for cleaning architectural iron work, figured brass, etc. No. 1641 is extensively used for brushing pipe threads, cleaning battery terminals, etc. No. 1646 packed 2 dozen in carton. No. 1641 packed 1 dozen in carton.

STREET PUSH BROOMS

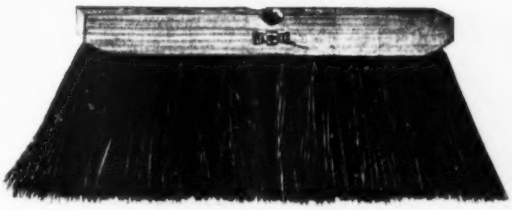
WIRE PUSH BROOMS



Tempered Flat Steel Wire

No.	Size of block	Rows	Length of wire	Weight per doz.	List per doz.
1001	12x2⅜ in.	4	5 in.	28 lbs.	$15.00
1002	14x2⅜ in.	4	5 in.	33 lbs.	18.00

FIBRE PUSH BROOMS



Genuine African Bass
Wide Flaring Ends

No.	Size of block	Rows	Length of Stock	Weight per doz.	List per doz.
1211	16x3½ in.	5	6¼ in.	42 lbs.	$19.00

List Prices Indicate Relative Values

Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2230 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

STOCK FIRE BRICK For GREATER PROFIT

Many Mill Supply Houses which started with the sale of High Temperature Cements and refractory specialties have found it advantageous to include Fire Brick in their refractories line in order to serve their trade adequately and secure the greatest volume and profit.

General Refractories Company's "Complete Refractories Service" includes every type and quality grade of Fire Brick. It will pay you to sell a "Complete Refractories Service."

Complete information on request.

GENERAL REFRACTORIES COMPANY

PHILADELPHIA, PA.

A COMPLETE REFRACTORIES SERVICE

6579C

Brick, Fire

Babcock & Wilcox, New York, N. Y.
General Refractories Co., Philadelphia, Pa.
Green, A. P., Fire Brick Co., Mexico, Mo.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
North American Refractories Co., Cleveland, Ohio.
Quigley Company, Inc., New York, N. Y.

Brick, Fire Insulating

Armstrong Cork Products Co., Lancaster, Pa.
Babcock & Wilcox, New York, N. Y.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Johns-Manville, New York, N. Y.
Quigley Company, Inc., New York, N. Y.

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Harbison-Walker Refractories Co., Pittsburgh, Pa.
Johns-Manville, New York, N. Y.
Quigley Company, Inc., New York, N. Y.

Brick, Insulating, Refractory

Armstrong Cork Products Co., Lancaster, Pa.
Babcock & Wilcox, New York, N. Y.
Carey, Phillip, Co., The, Lockland, Ohio.
Green, A. P., Fire Brick Co., Mexico, Mo.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Quigley Company, Inc., New York, N. Y.

Bricklayers' Sets

(See "Sets, Bricklayers'")

Bricks and Sticks, Abrasive

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
American Emery & Stone Co., New York.
Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
Carborundum Co., The, Hutto Machine Division, Detroit, Mich. (Abrasive honing sticks.)
Carborundum Co., The, Niagara Falls, N.Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Harrison & Co., Haverhill, Mass.
Norton Co., Worcester, Mass.
Peninsular Grinding Wheel Co., Detroit, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Vitrified Wheel Co., Westfield, Mass.
Waltham Grinding Wheel Co., Waltham, Mass.

Bricks, Rubbing

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Norton Co., Worcester, Mass.
Peninsular Grinding Wheel Co., Detroit, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.

Broaches

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Hammel, Riglander & Co., Inc., Importers, New York, N. Y.
Illinois Tool Works, Chicago, Ill.
Scully-Jones & Co., Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Broaching Machines

(See "Machines, Broaching")

Bronze Bars, Cored and Solid

(See "Bars, Bronze, Cored and Solid")

Bronze, Castings or Ingots, Aluminum, Manganese and Phosphor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Aluminum Industries, Inc., Cincinnati, O.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Injector Co., Detroit, Mich.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Atlas Brass Foundry, Los Angeles, Calif.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bristol Brass Corp., The, Bristol, Conn. (Phosphor only)
Bunting Brass & Bronze Co., Toledo, Ohio.
Consolidated Metal Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton, Ohio.
Farnan Brass Works Co., The, Cleveland, Ohio.
Federated Metals Corp., New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Fredericksen Co., Saginaw, Mich.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Johnson Bronze Co., New Castle, Pa.
Messmer Brass Co., St. Louis, Mo.
Moccasin Bushing Co., Chattanooga, Tenn.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.

Bronze Rods, Bars and Sheets, Rolled

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Anaconda Wire & Cable Co., New York.
Bristol Brass Corp., The, Bristol, Conn.
Buckeye Brass & Mfg. Co., The, Cleveland, Ohio.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metal Corp., Detroit, Mich.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Revere Copper and Brass, Inc., Rome Division, Rome, N. Y.

Brooms and Brushes, Factory or Warehouse

Deshler Broom Factory, The, Deshler, Neb.
Gerts, Lumbard & Co., Chicago, Ill.
Hamburg Broom Works, Hamburg, Pa.

NEW!

A REAL IMPROVEMENT in STREET and GUTTER BROOMS

No 97 HI-WAY

Pat. Pending.

Rear tufts (fine fibre) 1 inch longer, and flared ends spread wide. Front tufts of coarse fibre. Steel bumpers on each end. Sweeps dust and heavy particles in same operation. Can be used with one hand, saving back action.

Distributors—This item will really sell for you. Let us have your inquiries.

THE JOSEPH LAY CO., Inc.

Since 1876 PORTLAND, IND.

Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Merkle Broom Co., Paris, Ill.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Southwestern Broom Mfg. Co., The, Evansville, Ind.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms, Fibre, Upright

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Milwaukee Brush Mfg. Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brooms, Hide

Deshler Broom Factory, The, Deshler, Neb.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph Co., The, Portland, Ind.

Osborn Manufacturing Co., The, Cleveland, Ohio.
Warner, W. E., & Co., New York, N. Y.

Brooms, Push, Fibre or Wire

Gerts, Lumbard & Co., Chicago, Ill.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Littleford Bros., Cincinnati, Ohio.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms or Brushes, Track or Switch

Deshler Broom Factory, The, Deshler, Neb.
Hamburg Broom Works, Hamburg, Pa.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland, Ohio.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms, Whisk

Deshler Broom Factory, The, Deshler, Neb.
Hamburg Broom Works, Hamburg, Pa.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Merkle Broom Co., Paris, Ill.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Osborn Manufacturing Co., The, Cleveland.
Southwestern Broom Mfg. Co., The, Evansville, Ind.

Brooms, Wire

Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Littleford Bros., Cincinnati, Ohio.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Acid or Lime, Masons'

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Mason Brush Works, Worcester, Mass.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Make your selection from

CAPITAL

(GUARANTEED)

Brushes and Brooms

Metal Case

For more than forty-five years Capital guaranteed brushes and brooms have been known for high quality and dependability. The types outlined below have been designed to meet your customers' service requirements.

GUARANTEE

No one is ever dissatisfied with Capital performance. However — if for any reason whatever, a Capital purchase should be returned within 30 days, we shall gladly replace, or refund the purchase price, paying freight both ways.

WE MAKE:

- "RED CAP" METAL CASE BROOMS—Machine nailed and clinched under high compression, further reinforced with metal band and two seams of genuine Italian flax twine; made of corn, corn and bamboo mixed, corn and rattan mixed; also bass fibre.
- MILL BROOMS—Popular quality brooms for Mill or Warehouses; strong, well built; made of all corn or corn and bamboo or rattan mixed—any size.
- "LOONTEE" GENERAL PURPOSE MILL BROOM —Where a closed top broom is desired the Loontee is the longest wearing mill broom obtainable —made of an imported fibre not affected by water, chemicals, or like substances. Not necessary to dip in water to keep fibre from curling as it always remains straight.
- PUSH BROOMS—Designed for maximum service; solid hardwood blocks, neatly finished with two tapered handle holes; each tuft guaranteed to hold for life of broom. Our push brooms are made of very best imported materials—bass, bamboo or rattan—and are well filled.
- FLOOR BRUSHES—Complete line for garages, factories, janitors; made of bristle, horsehair, tampico, bassine, palmyra or palmetto fibre. Bristle brushes set in cement; all others wire stapled. Polished blocks with five foot handles to match.
- BENCH DUSTERS—Made in one size; plain finished block 14-in. overall, 8-in. brush; best tampico fibre. Very inexpensive but most durable. Designed for general factory or machine shop use.

General Catalog No. 37 listing complete line furnished on request.

Mill Broom
Loontee
Bass Push Broom
Floor Brush
Bench Dusters

INDIANAPOLIS

Brush & Broom Mfg. Co.

ESTABLISHED 1890

●

Cor. Brush and Broom Sts.
INDIANAPOLIS, IND.

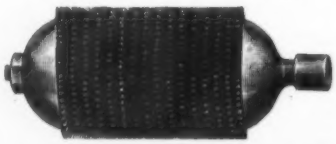
BUY FROM DISTRIBUTORS FOR ECONOMY

SCHAEFER BRUSHES
BUY SCHAEFER-IT'S SAFER

BOILER and FLUE BRUSHES!

Designed and made with a full appreciation of the requirements peculiar to the field for which they are intended to serve. Buy Schaefer Brushes with the confident assurance that they will give you the fullest satisfaction.

Write for information and prices!



SCHAEFER
BRUSH MFG. CO.
1011 S. 2ND ST., MILWAUKEE

Brushes, Air, Spray Painting

(See "Air Brushes, Spray Painting")

Brushes and Belting, Sifter Brush

(See "Sifter Brush Belting and Brushes")

Brushes, Bench and Counter

Deshler Broom Factory, The, Deshler, Neb.
Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Buffing

Elder & Jenks, Philadelphia, Pa.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Key Co., E. St. Louis, Ill.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Warner, W. E., & Co., New York, N. Y.

Brushes, Calcimine

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Carbon Removing

Black & Decker Mfg. Co., The, Towson, Md.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Ohio Carbon Co., The, Cleveland, Ohio.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Casting

(See "Brushes, Foundry")

Brushes, Closet Bowl

Gerts, Lumbard & Co., Chicago, Ill.
Kendallville Brush & Broom Co., Kendallville, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Washburn Co., The, Worcester, Mass.

Brushes, Deck Scrubbing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brushes, Factory

(See "Brooms and Brushes, Factory or Warehouse")

Brushes and Cards, File Cleaning

Cincinnati Tool Co., Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Nicholson File Co., Providence, R. I.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes, Floor

Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Mason Brush Works, Worcester, Mass.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Floor Polishing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brushes, Flue, Boiler and Furnace

Advance Packing & Supply Co., Chicago.
Chesterton, A. W., Co., Boston, Mass.
Kendallville Brush & Broom Co., Kendallville, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.
Wilson, Thomas C., Inc., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Foundry

Advance Packing & Supply Co., Chicago, Ill.
Elder & Jenks, Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Gerts, Lumbard & Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Mason Brush Works, Worcester, Mass.
Manufacturers Brush Co., The, Cleveland.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Spear Carbon Co., St. Marys, Ohio.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Glue

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers' Belt Hook Co., Chicago.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Schieren, Chas. A., Co., New York, N. Y.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Lacquering

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Loom and Comber

Elder & Jenks, Philadelphia, Pa.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Molders'

(See "Brushes, Foundry")

TRADE MILWAUKEE MARK

WIRE WHEEL AND END BRUSHES

For Cleaning, Buffing, Polishing, Grinding, etc.

"MONO-BILT" WIRE WHEEL BRUSHES
(Interchangeable Centers)

Interchangeable "Mono-Bilt" Centers

"Mono-Bilt" Wire Wheel Brushes are made of specially drawn, thoroughly crimped wire intermingled into a brush of exceptional strength and durability. A complete all metal unit—evenly balanced to eliminate vibration—which can be mounted directly on the shaft.

Interchangeable Centers with arbor hole sizes ranging from ½ to 1½ inches are regularly furnished for 6, 8, 10, and 12 inch diameter Mono-Bilt Wire Wheel Brushes.

Four-inch diameter brushes are usually made to fit directly on the shaft without the use of Interchangeable Centers. Arbor hole sizes range from ¼ to 1-inch, of which the ½ inch size is the most popular. If desired, these brushes can be supplied with ⅜ or ½ inch Interchangeable Centers at no extra charge.

"MONO-BILT" WHEELS (Standard)

No.	Diameter	Thickness	W. & M. gauge wire	Weight, each	List, each
101	12 in.	2 in.	33	8 lbs.	**$8.50**
102	10 in.	2 in.	33	7 lbs.	**7.00**
103	8 in.	1⅜ in.	33	3½ lbs.	**5.00**
105	6 in.	1⅜ in.	33	2½ lbs.	**3.75**
107	4 in.	¾ in.	33	¾ lb.	**2.25**

"MONO-BILT" WHEELS (Narrow Face)

123	8 in.	1 in.	33	2½ lbs.	**$4.00**
125	6 in.	1 in.	33	2 lbs.	**3.00**
127	4 in.	⅝ in.	33	½ lb.	**2.00**

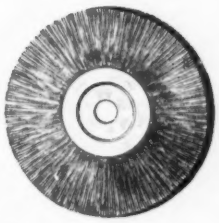
List prices include one pair of Interchangeable Centers.

	List per pair
Extra pairs of centers for 6-inch diameter and larger wheels	**$0.25**
Extra pairs of centers for 4-inch diameter wheels	**.18**

When ordering, please state size of arbor hole.

"STEEL CLAD" WIRE WHEEL BRUSHES
Steel Center

Each Brush is a Complete Unit



Can Be Mounted Directly on Shaft

"Steel Clad" Wire Wheel Brushes or Sections eliminate the necessity of hubs. They can be used singly, or in assemblies of any number desired.

No.	Diam.	Width of face	W. & M. gauge wire	Weight each	List each
130	15 in.	½ in.	30	1¾ lbs.	**$1.50**
131	12 in.	½ in.	30	1¼ lbs.	**1.35**
132	10 in.	½ in.	30	1 lb.	**1.20**
133	8 in.	½ in.	33	¾ lb.	**.90**
135	6 in.	⅜ in.	33	½ lb.	**.80**
136	5 in.	⅜ in.	33	⅜ lb.	**.70**
137	4 in.	⅜ in.	33	¼ lb.	**.65**
138	3 in.	⅜ in.	33	⅛ lb.	**.55**

When ordering, please state size of arbor hole.

STEEL WIRE CUP BRUSH

The wire is coarse and heavy to withstand the severe strain to which brush is subjected. This brush is especially designed for removing old paint, scale, rust, etc., from large metal surfaces.

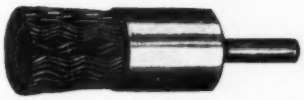
Length of wire 1⅝ in.

Diameter of brushing surface 6¼ in.

No.	Size of Wire	Weight each	List each
3335	.032	2¾ lbs.	**$4.50**

When ordering, please state size of arbor hole.

CARBON REMOVING BRUSH



No. 3319—⅞-inch diameter ferrule; ¼-inch diameter steel shank. Length of wire 1 inch. Length overall 3¾ inches. Weight, each, ¼ lb. List, each.....**$1.75**

Any of the brushes listed above can be made of coarser or finer wire if desired.

List Prices Indicate Relative Values

Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

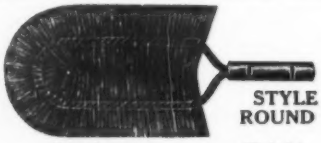
UMI

TRADE MILWAUKEE MARK

STEEL WIRE FLUE BRUSHES

STYLE A—ROUND WIRE

No.	Brush part, inches	Weight per 100	List per 100
1900	1⅝x4 x4½	50 lbs.	$ 75.00
1901	2½x6 x4½	75 lbs.	125.00
1902	3½x6⅝x4½	88 lbs.	150.00



STYLE B—ROUND WIRE

No.	Brush part, inches	Weight per 100	List per 100
1903	1¾x4x5⅛	75 lbs.	$90.00

STYLE M—FLAT WIRE (Oval)

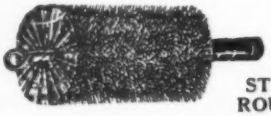
No.	Brush part, inches	Weight per 100	List per 100
3017	2 x3¼x4	50 lbs.	$ 60.00
3051	2 x4 x4	60 lbs.	70.00
3252	1⅝x3¼x4	37 lbs.	60.00
3253	2 x3¾x5	62 lbs.	75.00
3254	2¾x4½x6	75 lbs.	90.00
3255	2¾x6¾x6¾	137 lbs.	200.00

STYLE D—ROUND WIRE (Rectangular)

No.	Brush part, inches	Weight per 100	List per 100
1915	2x4x4½	50 lbs.	$125.00
1916	3x5x4½	62 lbs.	150.00

STYLE S—FLAT WIRE—SINGLE SPIRAL

No.	Length of brush part, inches	For flue sizes, inches	Weight per 100 (3" size)	List per inch diameter
1950	4½	1 to 6	50 lbs.	$0.25



STYLE W—ROUND WIRE

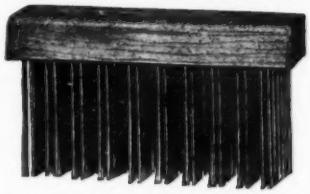
No.	Length of brush part, inches	For flue sizes, inches	Weight per 100 (3" size)	List per inch diameter
1953	4½	1 to 6	44 lbs.	$0.25

ROUND STEEL WIRE—SINGLE SPIRAL

Brush Part 4½ Inches Long

No.	Diameter of brush, inches	Length of handle, inches	Weight per 100	List per 100
914	3	48	60 lbs.	$50.00
916	4	48	64 lbs.	55.00
918	5	48	72 lbs.	60.00
924	3	60	68 lbs.	55.00
926	4	60	72 lbs.	60.00
928	5	60	80 lbs.	65.00

FOUNDRY BRUSHES



PLAIN CASTING BRUSHES—FLAT WIRE

No.	Rows	Length of wire, inches	Size of block, inches	Weight per gross	List per gross
1731	4x10	3	7¾x2¼	120 lbs.	$50.00
1732	4x10	4	7¾x2¼	135 lbs.	60.50
1734	5x10	2	7¾x2⅝	128 lbs.	49.00
1736	5x10	3	7¾x2⅝	144 lbs.	60.50
1737	5x10	4	7¾x2⅝	160 lbs.	68.50

Shipped in bulk.

PLATERS' BRUSHES

Plain Finished Hardwood Solid Block. Staple set.
Length of Brush part 5½ inches. Length overall 12 inches. Length of stock 1-inch.

Selected White Tampico

No.	Rows	Width of block	Weight per gross	List per gross
1393	3	⅞ in.	34 lbs.	$36.00
1394	4	1¼ in.	45 lbs.	40.00

Stiff Black Chinese Bristle

No.	Rows	Width of block	Weight per gross	List per gross
2003	3	⅞ in.	26 lbs.	$72.00
2004	4	1¼ in.	31 lbs.	90.00

Nos. 1393, 2003 and 2004 packed 1 dozen in carton.
No. 1394 packed 6 dozen in carton.

Plain Finished Hardwood Solid Block. Staple set.
Length of Brush part 5 inches. Length overall 10 inches. Length of stock 1-inch.

Four Rows

No.	Stock	Width of block	Weight per gross	List per gross
1380	Grey Tampico Fibre	1 in.	42 lbs.	$45.00
1381	Black Chinese Bristle	1 in.	39 lbs.	90.00

Packed 1 dozen in carton.

List Prices Indicate Relative Values

Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

TRADE MILWAUKEE MARK

WIRE CLEANING BRUSHES

Round Steel Wire Hand Brushes

MILWAUKEE Wire Brushes are made of best quality specially tempered fine carbon steel wire. They are built to exacting standards of uniformity and rigidly inspected before leaving our factory. The blocks are well filled—wires evenly trimmed, and securely fastened in carefully selected thoroly seasoned hardwood blocks. Every brush is a carefully balanced, efficient tool.

STRAIGHT BACK—SOLID BLOCK

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1611	7¼x2¼	6x19	1¾	115 lbs.	$54.00

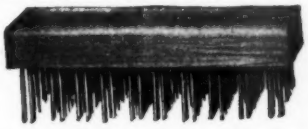
For general use in removing paint, varnish, rust, grease, etc. Takes the place of sandpaper, steel wool and similar abrasives. Works faster and is more effective. Packed 1 dozen in carton.

LONG HANDLE SOLID BLOCK

Length of Brush part 6¼ inches.

No.	Rows	Length overall, inches	Length of wire, inches	Weight per gross	List per gross
1651	3x19	14	1¼	68 lbs.	$37.50
1656	4x19	14	1¼	78 lbs.	49.00

No. 1651 extensively used in auto repair shops and garages. No. 1656 designed for Braziers' finishing work. Packed 1 dozen in carton.



FLAT STEEL WIRE BRUSHES

Solid Hardwood Block
Block 7¾x2⅝ inches.

No.	Rows	Length of wire, inches	Weight per gross	List per gross
1801	5x10	1¼	120 lbs.	$43.50
1802	5x10	1½	125 lbs.	45.00

In addition to cleaning butchers' blocks, these brushes are used for cleaning stone and brick surfaces and structural iron work.

CURVED BACK—SOLID BLOCK

No.	Inches	Rows	Length of wire, inches	Weight per gross	List per gross
1632	7⅛x2⅞	9x21	1¼	120 lbs.	$81.00

Heavily filled brushes with rocker faces. Very effective for removing varnish, and cleaning wood or metal surfaces preparatory to refinishing. Packed 1 dozen in carton.

WIRE DUSTER SOLID BLOCK

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1661	2¾x1⅛	4x8	2⅜	45 lbs.	$54.00

Very effective for removing dirt and other accumulations between boards in old soft wood floors. Especially adapted for use on mouldings, baseboards, etc. Popular among mechanics for brushing chips and borings from machines. Packed 1 dozen in carton.

SHOE HANDLE SOLID BLOCK

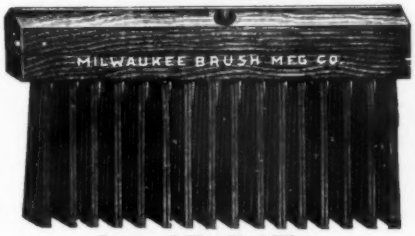
Length of Brush part 5 inches.

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1646	⅝x10	2	1¼	38 lbs.	$43.50
1641	1x10	4	1⅛	60 lbs.	46.50

Especially designed for use in places inaccessible to larger and wider brushes. Also suitable for cleaning architectural iron work, figured brass, etc. No. 1641 is extensively used for brushing pipe threads, cleaning battery terminals, etc. No. 1646 packed 2 dozen in carton. No. 1641 packed 1 dozen in carton.

STREET PUSH BROOMS

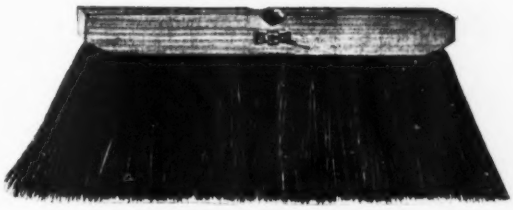
WIRE PUSH BROOMS



Tempered Flat Steel Wire

No.	Size of block	Rows	Length of wire	Weight per doz.	List per doz.
1001	12x2⅝ in.	4	5 in.	28 lbs.	$15.00
1002	14x2⅝ in.	4	5 in.	33 lbs.	18.00

FIBRE PUSH BROOMS



Genuine African Bass
Wide Flaring Ends

No.	Size of block	Rows	Length of Stock	Weight per doz.	List per doz.
1211	16x3½ in.	5	6¼ in.	42 lbs.	$19.00

List Prices Indicate Relative Values

Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

UMI

TRADE MILWAUKEE MARK

FLOOR SWEEPING BRUSHES

GENERAL PURPOSE

ALICE

Selected Black Tampico Center, Black Horsehair Casing. Staple set. Length of stock 2⅞ inches. Red polished block. Red polished handle.

Alice Brushes are adapted for all general sweeping. Can be effectively used on cement, linoleum covered or wood floors.

Length	Weight per doz.	List per doz.
14 in.	33 lbs.	$26.00
16 in.	36 lbs.	29.00
18 in.	39 lbs.	32.00
24 in.	50 lbs.	46.00

PURE STIFF HORSEHAIR

ALMA

Stiff Pure Black Horsehair. Staple set. Length of stock 2⅞ inches. Red polished block. Red polished handle.

Alma Brushes sweep thoroughly on tile and smooth finished floors. Extensively used on hotel and showroom floors.

Length	Weight per doz.	List per doz.
14 in.	33 lbs.	$35.00
16 in.	36 lbs.	38.00
18 in.	39 lbs.	41.00
24 in.	50 lbs.	66.00

STEEL WIRE AND FIBRE MIXTURE

ALENE

Mixed Fine Round Carbon Steel Wire and Selected Grey Fibre Center, Selected Grey Fibre Casing. Staple set. Length of stock 2¾ inches. Natural varnished block. Natural polished handle.

Alene Brushes, heavily filled, are effective on rough wood, cement or brick floors. Especially adapted for use in garages, machine shops, engine rooms, etc.

Length	Weight per doz.	List per doz.
16 in.	40 lbs.	$31.00
18 in.	44 lbs.	34.00
24 in.	56 lbs.	50.00

SPECIAL MIXTURE

VANGUARD

Pure Palmetto Center, Next Two Rows of Selected Grey Fibre. Pure Black Horsehair Casing. Staple set. Length of stock 3¼ inches. Red polished block. Red polished handle.

Vanguard Brushes excel in clean sweeping and prolonged wear. The Palmetto center adds cutting power and brushing resistance.

Length	Weight per doz.	List per doz.
16 in.	39 lbs.	$45.00
18 in.	42 lbs.	50.00
24 in.	54 lbs.	71.00

HEAVY DUTY BASSINE

JOE

Good Quality Bassine Fibre. Staple set. Length of stock 4 inches. Natural varnished block. Extra heavy plain handles, tapered ends.

Very serviceable for the heavier kinds of sweeping in factories, mills, garages, etc.

Length	Weight per doz.	List per doz.
16 in.	49 lbs.	$30.00
18 in.	54 lbs.	33.00
24 in.	66 lbs.	45.00

STEEL WIRE CENTER

HUMMER

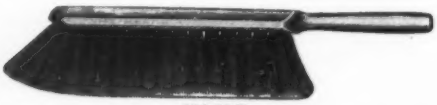
Center Row of Fine Round Steel Wire, Selected Black Tampico Fibre in Balance of Brush. Staple set. Length of stock 2⅝ inches in center row, 2⅞ inches in outer rows. Natural varnished block. Natural polished handle.

Hummer Brushes, because of their wire center, cut through grime and grease on dirty floors, leaving a clean surface.

Length	Weight per doz.	List per doz.
16 in.	40 lbs.	$31.00
18 in.	44 lbs.	35.00
24 in.	56 lbs.	54.00

Weights and prices listed on all floor brushes include handles.
All above brushes packed in individual cartons.

COUNTER BRUSHES



MAJOR

Pure Black Horsehair. Staple set. Natural Polished Block. Length of stock 2¼ inches.

Size	Weight per doz.	List per doz.
8 inches	6 lbs.	$10.50
9 inches	7 lbs.	11.50

A practical and serviceable brush for factory or general use at a low price.

Packed ½ dozen in carton.

OHIO

Stiff Black Horsehair. Staple set. Natural Polished Block. Heavily Filled. Length of stock 2⅞ inches.

Size	Weight per doz.	List per doz.
8 inches	9 lbs.	$20.00
9 inches	10 lbs.	24.00

An extra heavily filled brush for factories, stores, offices, etc.

List Prices Indicate Relative Values

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THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

Brushes, Oil, Machinists'

Elder & Jenks, Philadelphia, Pa.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E.. Co., New York, N. Y.

Brushes, Paint, Varnish, Calcimine, Whitewash, Etc.

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers Brush Co., The, Cleveland, Ohio.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Warner, W. E., & Co., New York, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.

Brushes, Platers' and Polishers'

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Portable Grinding

Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Warner, W. E., & Co., New York, N. Y.

Brushes, Radiator

Gerts, Lumbard & Co., Chicago, Ill.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.

Brushes, Roofing

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.

Brushes, Sander

Black & Decker Mfg. Co., The, Towson, Md.
Elder & Jenks, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Warner, W. E., & Co., New York, N. Y.

Brushes, Sanitary

Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brushes, Scratch

(See "Brushes, Wire")

Brushes, Scrub

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Manufacturers Brush Co., The, Cleveland.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Warner, W. E., & Co., New York, N. Y.

Brushes, Stencil

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes, Varnish

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Wheel, Bristle and Fibre

Elder & Jenks, Philadelphia, Pa.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Van Dorn Electric Tool Co., The, Towson, Md.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Wheel, Wire and Fibre

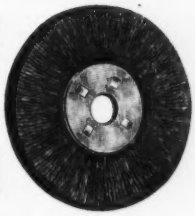
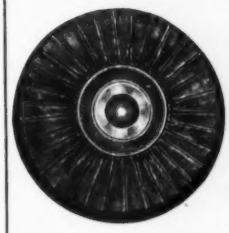
Black & Decker Mfg. Co., The, Towson, Md.
Elder & Jenks, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Whitewash

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Window Washing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Maendler Brush Mfg. Co., Inc., St. Paul, Minn.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

SCHAEFER BRUSHES
BUY SCHAEFER-IT'S SAFER
WIRE WHEEL BRUSHES!


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Write for catalogue and prices!
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1011 S. 2ND ST., MILWAUKEE

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Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stow Mfg. Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Wire, Hand

Black & Decker Mfg. Co., The, Towson, Md.
Dallett Co., The, Philadelphia, Pa.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lincoln Electric Co., The, Cleveland, Ohio.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush & Mop Co., Terre Haute, Ind.
Van Dorn Electric Tool Co., The, Towson, Md.

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Patterson Bros. New York, N. Y.
Geo. A. Myers & Co., Inc. Paterson, N. J.
Belcher & Loomis Hdwe. Co. Providence, R. I.
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The familiar Elephant Brand twelve-inch stock bushing bars are now available machined with 1/32" plus O.D. and 1/32" minus on the I.D., up to and including 3" diameter . . . and from 3" to 6" inclusive with 1/16" plus O.D. and 1/16" minus on the I.D. Maximum I.D. S-4".

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Whitlam, J. C., Mfg. Co., Wadsworth, O.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Buckets, Clam Shell and Orange Peel

Blaw-Knox Co., Pittsburgh, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Harnischfeger Corp., Milwaukee, Wis.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Marion Steam Shovel Co., The, Marion, O.

Buckets or Pails—Fire, Water, Etc.

(See "Pails")

Buckets, Grease

Chapin, R. E., Mfg. Works, The, Batavia, N. Y.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Buffer-Grinder, Combination

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Valley Electric Corp., St. Louis, Mo.
Van Dorn Electric Tool Co., The, Towson, Md.
Wodack Electric Tool Corp., Chicago, Ill.

Buffers

(See "Machines, Buffing and Polishing," and "Machines, Buffing, Pneumatic")

Buffing and Polishing Wheels

(See "Wheels, Buffing and Polishing")

Buggies, Lumber

(See "Trucks and Buggies, Lumber")

Bulbs, Electric

(See "Lamps, Electric")

Bulbs, Furnace, Rubber

Bernz, Otto, Co., Inc., Rochester, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Passaic, N. J.

Bull Points

American Swiss File & Tool Co., Elizabeth, N. J.
Arro Expansion Bolt Co., Marion, Ohio.
Channon, J. H., Corp., Chicago, Ill.
Enderes, Son & Co., Inc., Guttenberg, Iowa.

Bulldozers

Pels, Henry, & Co., Inc., New York, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.

Bumpers, Rubber

Belmont Packing & Rubber Co., The, Philadelphia, Pa.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Colson Corp., The, Elyria, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Rubber Works, Elkhart, Ind.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Nutting Truck Co., Faribault, Minn.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.

Burners, Annealing

Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Torit Manufacturing Co., St. Paul, Minn.

Burners, Bunsen

Boekel, Wm., & Co., Philadelphia, Pa.
Hones, Chas. A., Inc., Baldwin, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

Burners, Combination, for Fuel Oil and Gas

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Morley Co., LaPorte, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Efficiency Engineering Co., Boston, Mass.
Scovill Mfg. Co., Waterbury, Conn.
Standard Fuel Engineering Co., Detroit.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
R. S. Products Corp., Philadelphia, Pa.

Burners, Kerosene, Portable

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Diamond Iron Works, Inc., Minneapolis.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
Sandvik Saw & Tool Corp., Minneapolis.
Scovill Mfg. Co., Waterbury, Conn.
Torit Manufacturing Co., St. Paul, Minn.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.

Burners, Lead

(See "Lead Burning Outfits")

Burnishing Machines

(See "Barrels, Burnishing" and "Machines, Buffing and Polishing")

Burring Machines

(See "Machines, Burring")

Burrs, Brass and Copper

(See "Rivets and Burrs, Brass and Copper")

Burrs, Steel and Wrought Iron

(See also "Files, Rotary")

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Atlas Tack Corp., Fairhaven, Mass.
Bay State Stamping Co., Worcester, Mass.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Massachusetts Machine Shop, Inc., Boston, Mass.
Master Products Co., The, Cleveland, O.
Pratt & Whitney Co., Hartford, Conn.
Reed & Prince Mfg. Co., Worcester, Mass.
Stanley Works, The, New Britain, Conn.
United Screw & Bolt Corp., Cleveland, O.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Bushings, Bronze, Finished

Allen, W. D., Mfg. Co., Chicago, Ill.
Aluminum Industries, Inc., Cincinnati, O.
American Injector Co., Detroit, Mich.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Atlas Brass Foundry, Los Angeles, Calif.
Boston & Lockport Block Co., East Boston, Mass.
Buckeye Brass & Mfg. Co., The, Cleveland.
Bunting Brass & Bronze Co., Toledo, O.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Columbian Iron Works, Chattanooga, Tenn.
Consolidated Metal Works, Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, O.
Everitt Co., The, Boston, Mass.
Fredericksen Co., Saginaw, Mich.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Huron Industries, Inc., Alpena, Mich.
Johnson Bronze Co., New Castle, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Link-Belt Co., Chicago, Ill.
Magnolia Metal Co., Elizabeth, N. J. (Semi-finished)
Messmer Brass Co., St. Louis, Mo.
Moccasin Bushing Co., Chattanooga, Tenn.
New York Brass Foundry Co., New York.

Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Palmer-Bee Co., Detroit, Mich.
Phosphor Bronze Smelting Co., The, Philadelphia.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Sumet Corp., Buffalo, N. Y.
Torrey Roller Bushing Works, Bath, Me.
Western Block Co., Lockport, N. Y.
Williams, E. A., & Son, Inc., Jersey City, N. J.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bushings, Bronze, Flanged

Aluminum Industries, Inc., Cincinnati, O.
American Injector Co., Detroit, Mich.
Atlas Brass Foundry, Los Angeles, Calif.
Buckeye Brass & Mfg. Co., The, Cleveland.
Bunting Brass & Bronze Co., Toledo, Ohio.
Harris, Arthur, & Co., Chicago, Ill.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., Columbus, O.
Johnson Bronze Co., New Castle, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Link-Belt Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Palmer-Bee Co., Detroit, Mich.
Sumet Corp., Buffalo, N. Y.
Western Block Co., Lockport, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bushings, Die Stock

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Walworth Co., New York, N. Y.

Bushings, Hose

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis, Mo.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Jiffy Fire Hose Rack Co., New York, N. Y.
Mulconroy Company, Philadelphia, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Bushings, Pipe, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
Atlas Brass Foundry, Los Angeles, Calif.
Belfield, H., Co., Philadelphia, Pa.
Boston & Lockport Block Co., East Boston, Mass.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Metal Works, Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Everitt Co., The, Boston, Mass.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Haydenville Co., The, Haydenville, Mass.
Illinois Malleable Iron Co., Chicago, Ill.
Johnson Bronze Co., New Castle, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Mueller Co., Decatur, Ill.
Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Perkes, Charles Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Ralco Manufacturing Co., Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
United American Metals Corp., Brooklyn.
Walworth Co., New York, N. Y.

Bushings, Pipe, Cast Iron and Malleable

Armstrong Manufacturing Co., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Bushings, Pipe, Steel

Crane Co., Chicago, Ill.
Globe Steel Tubes Co., Milwaukee, Wis.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Mitchell, W. K., & Co., Inc., Philadelphia.
Newbury Manufacturing Co., Monroe, N. Y.
Ralco Manufacturing Co., Chicago, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
South Chester Tube Co., Chester, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Bushings, Pulley, Loose

Arguto Oilless Bearing Co., Philadelphia.
Boston Gear Works, Inc., North Quincy, Mass.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chicago Pulley & Shafting Co., Chicago.
Dick, R. & J., Co, Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Lignum-Vitae Products Corp., Jersey City, N. J.
Maurey Manufacturing Corp., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Moccasin Bushing Co., Chattanooga, Tenn.
Palmer-Bee Co., Detroit, Mich.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bushings, Roller Bearing

American Hoist & Derrick Co., St. Paul.
Boston & Lockport Block Co., East Boston, Mass.
Filer & Stowell Co., The, Milwaukee, Wis.
Hartford Machine Screw Co., Hartford, Conn.
Lignum-Vitae Products Corp., Jersey City, N. J.
McMillan's, W. H., Sons, New York, N. Y.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Torrey Roller Bushing Works, Bath, Me.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Block Co., Lockport, N. Y.

Bushings, Self-Lubricating

American Hoist & Derrick Co., St. Paul.
Arguto Oilless Bearing Co., Philadelphia.
Atlas Brass Foundry, Los Angeles, Calif.
Boston & Lockport Block Co., East Boston, Mass.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Brown Engineering Co., Reading, Pa.
Bunting Brass & Bronze Co., Toledo, Ohio.
Channon, J. H., Corp., Chicago, Ill.
Continental-Diamond Fibre Co., Newark, Del.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Johnson Bronze Co., New Castle, Pa.
Lignum-Vitae Products Corp., Jersey City, N. J.
Madesco Tackle Block Co., Easton, Pa.
McMillan's, W. H., Sons, New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Merriman Bros., Inc., Boston, Mass.
Metal Saw & Machine Co., Inc., Springfield, Mass.
Moccasin Bushing Co., Chattanooga, Tenn.
Prier Brass Mfg. Co., Kansas City, Mo.
Torrey Roller Bushing Works, Bath, Me.
United States Graphite Co., The, Saginaw, Mich.
Upson-Walton Co., The, Cleveland, Ohio.
Williams, E. A., & Son, Inc., Jersey City, N. J.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bushings, Soldering

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
American Foundry & Mfg. Co., St. Louis.
Midland Mfg. Co., Ft. Worth, Tex.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)

Bushings, Wood

Arguto Oilless Bearing Co., Philadelphia.
Boston & Lockport Block Co., East Boston, Mass.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Lignum-Vitae Products Corp., Jersey City.
McMillan's, W. H., Sons, New York, N. Y.
Medart Co., The, St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Palmer-Bee Co., Detroit, Mich.
Rowe, Henry, Mfg. Co., Newaygo, Mich.

Busters, Rivet

Chicago Pneumatic Tool Co., New York.
Drew, C., & Co., Kingston, Mass.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Plomb Tool Co., Los Angeles, Calif.
Scully-Jones & Co., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

Busters, Rivet, Pneumatic

Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Schramm, Inc., West Chester, Pa.
Scully-Jones & Co., Chicago, Ill.

Butts, Belting, Rough

Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Williams, I. B., & Sons, Dover, N. H.

Butts and Hinges, Steel

Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent & Co., New Haven, Conn.
Scovill Mfg. Co., Waterbury, Conn.
Stanley Works, The, New Britain, Conn.
Torrey Roller Bushing Works, Bath, Me.
Veeder-Root Incorp., Hartford, Conn.
Western Products, Inc., Newcastle, Ind.

Cabinets, for Bolts, Screws, Etc.

Angle Steel Stool Co., Plainwell, Mich.
Art Metal Construction Co., Jamestown, N. Y.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Heller Bros. Co., Newark, N. J.
Heller, W. C., & Co., Montpelier, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Rockford Screw Products Co., Rockford, Ill.
Stevens, Walden, Inc., Worcester, Mass.
Warren, J. D., Mfg. Co., Montpelier, Ohio.

Cabinets, Drill

(See "Cases, Drill and Reamer")

Cabinets, Fire Extinguisher

Allen, W. D., Mfg. Co., Chicago, Ill.
Durabilt Steel Locker Co., Aurora, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Stevens, Walden, Inc., Worcester, Mass.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Cabinets, Fire Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Durabilt Steel Locker Co., Aurora, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

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Witt Ash, Garbage and Refuse Cans. Sturdy and durable. Proved from 50% to over 400% stronger than competitive brands in Pittsburgh Laboratory tests. 9 sizes, 5 to 33 gallons capacities.

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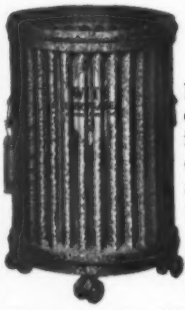

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Mine Safety Appliances Co., Pittsburgh, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland. (Equipment)
Safety Fire Extinguisher Co., The, Cleveland, Ohio.

Cabinets, Lathe Tool

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Lyon Metal Products, Inc., Aurora, Ill.
Pollard Bros. Mfg. Co., Chicago, Ill.
Stevens, Walden, Inc., Worcester, Mass.

Cabinets, Oil Storage

Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Bowser, S. F., and Co., Fort Wayne, Ind.
Burt Manufacturing Co., The, Akron, Ohio.
Chapin, R. E., Mfg. Works, The, Batavia, N. Y.
Durabilt Steel Locker Co., Aurora, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Stevens, Walden, Inc., Worcester, Mass.

Cabinets, Sand Blast

American Foundry Equipment Co., Mishawaka, Ind.
Dallett Co., The, Philadelphia, Pa.
Leiman Bros., Inc., Newark, N. J.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Ruemelin Mfg. Co., Milwaukee, Wis.
Sutorbilt Corp., Los Angeles, Calif.

Cabinets, Storage, Steel

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Art Metal Construction Co., Jamestown, N. Y.
Aurora Steel Products Co., Aurora, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Cleveland Wire Spring Co., The, Cleveland.
Durabilt Steel Locker Co., Aurora, Ill.
Heller, W. C., & Co., Montpelier, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Pollard Bros. Mfg. Co., Chicago, Ill.
Remington Rand, Inc., Buffalo, N. Y.
Warren, J. D., Mfg. Co., Montpelier, Ohio.

Cable, Highway Guard

American Cable Co., Inc., Wilkes-Barre, Pa.
American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Leschen, A., & Sons Rope Co., St. Louis.
Roebling's, John A., Sons Co., Trenton, N. J.
Sheffield Steel Corp., Kansas City, Mo.
Upson-Walton Co., The, Cleveland, Ohio.
Wickwire Spencer Steel Co., New York.
Williamsport Wire Rope Co., Williamsport, Pa.

Cables, Well Drilling

American Cable Co., Inc., Wilkes-Barre, Pa.
American Manufacturing Co., Brooklyn, N. Y.
American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Leschen, A., & Sons Rope Co., St. Louis.
Roebling's, John A., Sons Co., Trenton, N. J.
St. Louis Cordage Mills, St. Louis, Mo.
Sheffield Steel Corp., Kansas City, Mo.
Simplex Wire & Cable Co., Boston, Mass.
Upson-Walton Co., The, Cleveland, Ohio.
Wall Rope Works, Inc., New York, N. Y.
Wickwire Spencer Steel Co., New York.
Williamsport Wire Rope Co., Williamsport, Pa.

Calcium Carbide

Air Reduction Sales Co., New York, N. Y.
Linde Air Products Co., The, Unit of Union Carbide & Carbon Corp., New York.
National Carbide Corp., New York.
National Lead Co., New York, N. Y.
Shawinigan Products Corp., New York.

Calcium Chloride

Diener, Geo. W., Mfg. Co., Chicago, Ill.

Calipers—Pocket, Slide, Vernier and Micrometer

Brown & Sharpe Mfg. Co., Providence.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hammel, Riglander & Co., Inc., Importers, New York, N. Y.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Johnson, William, Inc., Newark, N. J.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Calorimeters

Cutler-Hammer, Inc., Milwaukee, Wis.
Leeds & Northrup Co., Philadelphia, Pa.

Cans, Ash and Garbage

Cleveland Wire Spring Co., The, Cleveland.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Geuder, Paeschke & Frey Co., Milwaukee.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Rochester Can Co., Rochester, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.
Witt Cornice Co., The, Cincinnati, Ohio.

Cans, Excelsior

Angle Steel Stool Co., Plainwell, Mich.
Continental-Diamond Fibre Co., Newark, Del.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Harker Mfg. Co., Cincinnati, Ohio.
Rochester Can Co., Rochester, N. Y.

Cans, Oil Storing

Chapin, R. E., Mfg. Works, The, Batavia, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eagle Manufacturing Co., Wellsburg, W. Va.
Gem Manufacturing Co., Pittsburgh, Pa.
Rochester Can Co., Rochester, N. Y.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Cans, Oiler

(See "Oilers")

Cans or Boxes, Oily Waste

Angle Steel Stool Co., Plainwell, Mich.
Cleveland Wire Spring Co., The, Cleveland.
Continental-Diamond Fibre Co., Newark, Del.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Fibre Specialty Mfg. Co., Division National Vulcanized Fibre Co., Kennett Square, Pa.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Harker Mfg. Co., Cincinnati, Ohio.
Huffman Manufacturing Co., The, Dayton, Ohio.
Jiffy Fire Hose Rack Co., New York, N. Y.
Justrite Manufacturing Co., Chicago, Ill.
Miller Peerless Manufacturing Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Nugent, Wm. W., & Co., Chicago, Ill.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Rochester Can Co., Rochester, N. Y.
Safety Equipment Service Co., The, Cleveland, Ohio.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.
Witt Cornice Co., The, Cincinnati, Ohio.

Cans or Receptacles, Refuse

Angle Steel Co., Plainwell, Mich.
Burt Manufacturing Co., The, Akron, O.
Cleveland Wire Spring Co., The, Cleveland.
Continental-Diamond Fibre Co., Newark, Del.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Geuder, Paeschke & Frey Co., Milwaukee.
Justrite Manufacturing Co., Chicago, Ill.
Rochester Can Co., Rochester, N. Y.
Safety Equipment Service Co., The, Cleveland, Ohio.
Safety Fire Extinguisher Co., The, New York, N. Y.
Walters Manufacturing Co., Oakmont, Pa.
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Protection Safety Can

For storing and proper handling of all volatile or explosive liquids. Strong and simply made—never breaks. Non-explosive—always protects. Easily handled. Spout opening, 1 gal. and larger, 1¾". Will permit insertion of filling station nozzle.

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Mine Safety Appliances Co., Pittsburgh.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Equipment Service Co., The, Cleveland, Ohio.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Cans, Tote or Roller

Cleveland Wire Spring Co., The, Cleveland.
Continental-Diamond Fibre Co., Newark, Del.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Market Forge Co., Everett, Mass.
Rochester Can Co., Rochester, N. Y.
Witt Cornice Co., The, Cincinnati, Ohio.

Cant Hooks

American Logging Tool Co., Evart, Mich.
Channon, J. H., Corp., Chicago, Ill.
Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Caps, Blasting

Hercules Powder Co., Inc., Wilmington, Del.

Caps, Drive, Well Casing

Clow, James B., & Sons, Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Illinois Malleable Iron Co., Chicago, Ill.
Mark, Clayton, & Co., Chicago, Ill.
Newbury Manufacturing Co., Monroe, N. Y.
Walworth Co., New York, N. Y.

Caps, Hose

(See "Fittings, Hose")

Caps, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Ralco Manufacturing Co., Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Caps, Pipe, Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Caps, Pipe, Steel

Crane Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Mitchell, W. K., & Co., Inc., Philadelphia.
Ralco Manufacturing Co., Chicago, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
South Chester Tube Co., Chester, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Wheeling Machine Products Co., Wheeling, W. Va.

Caps and Hats, Safety, Miners'

Bullard, E. D., Co., San Francisco, Cal.
Goodall Rubber Co., Philadelphia, Pa.
Mine Safety Appliances Co., Pittsburgh.

Every Effort Has Been Made

to Make

The Directory Edition

as Complete and Up-to-date as Possible

However, There May Be Instances Where You Do Not Find the Information You Are Seeking

In Such Cases, Write

MILL SUPPLIES

And We Will Do Everything We Can to Secure It for You

Justrite
MANUFACTURING COMPANY

Approved!
—By the Underwriters Laboratories and by the Associated Factories Mutual Fire Insurance Companies

LOWER Insurance Rates

Justrite Safety Products pay for themselves—many times over—with lower insurance rates...after your plant has been Justrite-equipped!

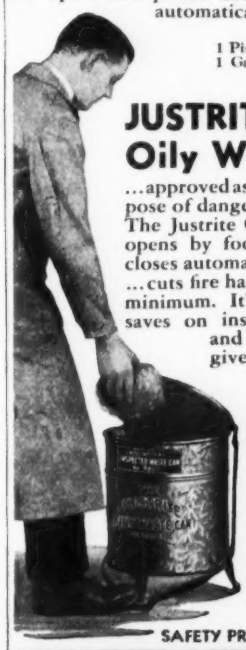
JUSTRITE Safety Can

...approved for safe handling of gasoline, benzine and other volatile liquids. The Justrite Safety Can saves evaporation... as well as on insurance rates. There is a Justrite for every plant and purpose... 1 pint to 5 gallons.

2, 3 and 5 Gallons

Thousands of Justrite Safety Cans in use now! Sturdy. Easy to open and pour. Closes automatically.

1 Pint to 1 Gallon



JUSTRITE Oily Waste Can

...approved as a safe way to dispose of dangerous oily waste. The Justrite Oily Waste Can opens by foot pressure and closes automatically. It's safe ...cuts fire hazards down to a minimum. It's economical—saves on insurance rates... and constructed to give years of service.

Sizes: 6, 8, 10 and 14 Gallons

Justrite Safety Products are sold by leading Hardware and Mill Supply Jobbers

If your supplier does not have Justrite Equipment, write to:

SAFETY PRODUCTS DIVISION

Justrite
MANUFACTURING COMPANY

2087 SOUTHPORT AVE., CHICAGO, ILL.

SWACO

SAFETY
CAR MOVER

SPURS bite into the rail edges

This Swaco car mover is light in weight, 16 lbs., yet is powerful and rugged. The pressure is scientifically triangulated to throw entire weight on spurs which are so placed as to grip the corners of the rail . . . not a chance of slipping.

This mover will get UNDER the load and place the handle high, enabling the operator to use full strength safely in starting the car.

Mover "ratchets" easily once the car is started and the angle of spurs prevents any chance of mover leaving the rail accidentally.

SPECIFICATIONS

Handle—Selected white hickory, 53½" long, waxed finish. Spurs — Special heat treated alloy steel with four sharp edges placed at extreme angle to grip the corners of the rail rather than the hard glazed top surface.

SAFETY WRENCH & APPLIANCE CO.
56 Commercial St.
WORCESTER, MASS.

Also see our advertisement on SWACO Safety Hopper Car Wrench near listing "Wrenches, Car."

Car Movers

Advance Car Mover Co., Inc., Appleton, Wis.
Aldon Co., The, Chicago, Ill.
American Logging Tool Co., Evart, Mich.
Appleton-Atlas Car Mover Corp., Milwaukee, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Dudgeon, Richard, Inc., New York, N. Y. (Hydraulic)
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Link-Belt Co., Chicago, Ill.
Rowell Mfg. Co., Appleton, Wis.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Safety Equipment Service Co., The, Cleveland, Ohio.
Safety Wrench & Appliance Co., Worcester, Mass.
Stafford Co., The, Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Tallman Manufacturing Co., Shelbyville, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Car Pullers

(See "Pullers, Car")

Carriages and Trucks, Cutting and Welding

All Steel Welded Truck Corp., Rockford, Ill.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Market Forge Co., Everett, Mass.
Service Caster & Truck Co., The, Albion, Mich.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Carriages, Tension, Rope Drive

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Carriers, Bucket and Pan

Bartlett, C. O., and Snow Co., The, Cleveland.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Carriers, Oil

Eagle Manufacturing Co., Wellsburg, W. Va.
Gem Manufacturing Co., Pittsburgh, Pa.
Products Manufacturing Co., Milwaukee.
Schwenk Safety Device Corp., New York.
Walters Manufacturing Co., Oakmont, Pa.

Carts, Bolt, Sectional

Aurora Equipment Co., Aurora, Ill.

Carts, Concrete

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Jackson Manufacturing Co., Harrisburg, Pa.
Jaeger Machine Co., The, Columbus, Ohio.
Lansing Co., Lansing, Mich.
Red Star Products Corp., Cleveland, Ohio.
Sidney Steel Scraper Co., The, Sidney, O.
Sterling Wheelbarrow Co., Milwaukee.
Toledo Wheelbarrow Co., The, Toledo, O.

Carts, Foundry, Charging

All Steel Welded Truck Corp., Rockford, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.

THE FAMOUS ATLAS
The Modern Car Mover

Offers You the Most in
Power
Speed
Appearance
Dependability
Performance

The ATLAS has kept pace with modern trends in car moving conditions. Heavier loads and rails require a car mover that can satisfactorily cope with the added burden placed upon it. More power and speed is absolutely necessary and ATLAS answers those requirements with ease.

Compound leverage gives it its great power—more than is developed by any other car mover—and quicker follow up.

It is truly a modern car mover in every respect and one which warrants your consideration because it is also a profitable item to carry in your stock. Fully guaranteed against all manufacturing defects.

Write us for literature.

APPLETON-ATLAS
CAR MOVER CORPORATION
2947 No. 30th Street
MILWAUKEE, WIS.
(FORMERLY OF APPLETON, WIS.)

ATLAS car MOVER POWER!

ADVANCE CAR MOVER CO., Inc., APPLETON, WIS.

Car Movers - - Car Wrenches

BADGER POWER KING CAR MOVER

A mover with triple compound leverage, alloy steel roller type, giving faster action and greater ease in operation, with no lost motion. Spurs set at an angle in concave spur plate, assuring positive track grippage. Spur plate so constructed as to eliminate wear on shoe. Improved saddle toggle and improved connection so arranged that both nose and shoe and toggle operate as a single unit. This mover has a world of power and will move a locomotive. Handle is selected maple, straight grained and turned oversize.

Weight, 18 pounds. Length over-all, 70 inches.

Price $9.00

BADGER POWER BOY CAR MOVER

Designed to handle average loads. Provides great power because of its short coupled saddle toggle. Rounded nose on saddle toggle gives fast action and elongated slot on shoe eliminates lost motion. As in Power King, spurs are set at an angle in a concave spur plate. This mover is two and one-half pounds lighter and has no equal for average car moving. Special malleable constructed. Handle is selected maple and is straight grained and turned oversize.

Weight, 15½ pounds. Length over-all, 68 inches.

Price $8.00

NEW BADGER No. 5 CAR MOVER

The NEW BADGER is light and well balanced, easy to handle and transport from place to place. Compound leverage provides a powerful forward thrust that will move any car. Besides having the "power" it has a quick-acting toggle action that will move and follow up empty cars faster than any other.

Castings—Certified Malleable Iron of very highest tensile and ultimate strength.

Handle—Selected Wisconsin Rock Maple—straight grained and turned oversize.

Spurs—Slip-proof, double construction. Made of Special steel rolled for the purpose and carefully hardened and oil drawn.

Weight, 18 pounds. Length over-all, 70 inches.

Price Complete, $8.00 List

ADVANCE SAFETY CAR WRENCH

The Advance automatically adjusts itself for attaching to any size winding taps found on standard drop bottom cars. Simply toss the wrench on the winding tap, press the handle and the jaws close until the square of the winding tap is firmly gripped. Nothing to get out of order—no teeth to mar the tap or get dull. One bolt holds all the castings together. Perfectly safe to operate—a slight jerk instantly releases the wrench so that the winding tap can spin freely without catching the wrench and striking the operator. Made of sturdy Certified Malleable oversize castings—hard maple handle. Length, over-all, 60 inches. Weight, 16 pounds.

Price $8.00

BADGER POWER KING
Repair Parts

No. 11 SHOE COMPLETE, with spurs, plate and bolts	$3.50
No. 11 SHOE ONLY, with No. 27 bolt	2.50
No. 13 SOCKET COMPLETE, with Roller No. 26, Saddle Toggle No. 12, Bolts No. 27 and Rivet No. 15	3.50
No. 13 SOCKET ONLY, with No. 27 bolt	2.00
No. 10 SPUR PLATE with No. 21 bolt	.50
No. 12 SADDLE TOGGLE with rivet	1.00
No. 15 RIVET for roller	.10
No. 21 BOLT for spur plate No. 10	.10
No. 22 SPURS, slip proof double	.50
No. 26 ROLLER	.20
No. 27 BOLT for attaching No. 11 Shoe	.20
No. 20 HANDLE, second growth rock Maple	2.00

BADGER POWER BOY
Repair Parts

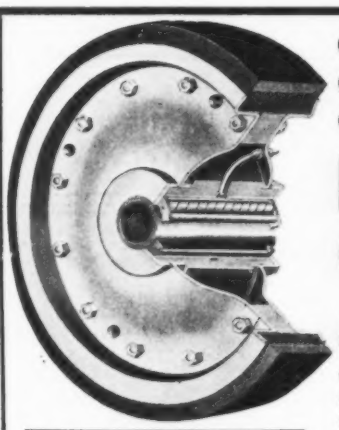
No. T SHOE COMPLETE, with spurs, plate and bolts	$3.00
No. T SHOE ONLY, with No. J bolt	2.00
No. Y SOCKET COMPLETE, with K Saddle Toggle, bolts and rivet	3.00
No. Y SOCKET ONLY, with bolt No. J.	2.00
No. K SADDLE TOGGLE with rivet	1.00
No. I PLATE with bolt No. L	.50
No. J BOLT for attaching shoe	.20
No. L BOLT for attaching plate	.10
No. W RIVET for Saddle Toggle	.10
No. 20 HANDLE, second growth Maple	2.00
No. 22 SPURS, slip proof double	.50

NEW BADGER No. 5 CAR MOVER
Repair Parts

No. A SHOE COMPLETE, with Spurs, Plate, Bolts and Rivets	$3.00
No. A SHOE ONLY with Toe Rivet and No. 23 Bolt	2.00
No. B SOCKET COMPLETE with No. C Toggle attached and No. 23 Bolt	3.00
No. B SOCKET ONLY, with No. 23 Bolt and No. 24 Rivet	2.00
No. C TOGGLE or CAM with No. 24 Rivet	1.00
No. D SPUR PLATE or CLAMP with No. 21 Bolt	.50
No. 20 HANDLE—second growth Maple	2.00
No. 21 BOLT for attaching No. D Plate	.10
No. 22 SPURS, Slip-Proof Double	.50
No. 23 BOLT, for attaching A Shoe	.20
No. 24 RIVET, for Cam No. C	.10
No. 25 TOE RIVET—hard steel	.20

ADVANCE SAFETY CAR WRENCH
Repair Parts

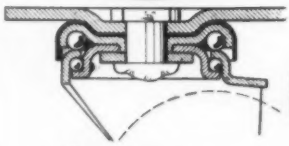
No. 100 FRAME	$2.40
No. 101 SLIDING JAW	1.50
No. 102 SOCKET	2.40
No. 103 HANDLE	1.50
No. 104 BOLT	.20
No. 105 STEEL SPUR	.50



Greater Profits for You
Greater Savings for Your
Customers with . . .

DARNELL CASTERS & WHEELS

With this new prosperity era comes the trend to quality products for assured savings. The Mill Supplies dealers featuring Darnell Casters and Wheels are in line for more business, more profits, more goodwill!



NOTE PATENTED DARNELL DOUBLE Ball-Bearing SWIVEL

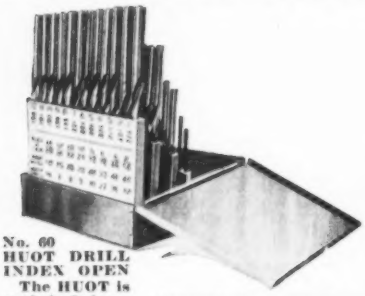
Darnell leadership in the Caster field has been built upon superior workmanship, highest quality materials and exclusive service-features, such as, the Double Ball-Bearing Swivel!

Write for New 192 Page Caster & Wheel Manual

DARNELL CORPORATION, LTD.

P.O. Box 4027-M Station B
Long Beach, California
24 E. 22nd St., New York, N. Y.
36 N. Clinton, Chicago, Ill.

HUOT DRILL INDEX



No. 60 HUOT DRILL INDEX OPEN

The HUOT is made in 6 sizes: No. 60, 3¼" x 4½" x 1" for wire gauge sizes, 1 to 60, inclusive; No. 20 for wire gauge sizes from 61 to 80; No. 13, for jobbers or fractional drills, 1/16" to ¾" inclusive by 64ths; No. 29, for same, 1/16" to ½" inclusive by 64ths; No. 26 for letter drills A to Z.

(No. 60, illustrated above holding 60 drills, can be carried in the vest pocket.)

Convenient, compact and definitely a time and money saver! Many useful features including a place for every drill, marked with size and decimal equivalent. Eliminates tedious search for the right size of drill.

Every mechanic who uses hand, breast, electric or portable drills will want one. Simple to use—a flip of the wrist, the case is open and drill selection is made quick and easy.

The Huot drill Index can be obtained through your twist drill source or direct from us. We will be glad to send you information.

HUOT MFG. CO.
128 E. 10th St. St. Paul, Minn.

Fairbanks Co., The, New York, N. Y.
Sterling Wheelbarrow Co., Milwaukee.

Carts, Hand

All Steel Welded Truck Corp., Rockford, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Littleford Bros., Cincinnati, Ohio.
Market Forge Co., Everett, Mass.
Nutting Truck Co., Faribault, Minn.
Schwenk Safety Device Corp., New York.

Carts, Hose

Goodall Rubber Co., Philadelphia, Pa.
Jiffy Fire Hose Rack Co., New York, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Co., Philadelphia, Pa.

Cases, Drill and Reamer

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio. (Drill cabinets)
Cleveland Twist Drill Co., The, Cleveland.
Durabilt Steel Locker Co., Aurora, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Heller, W. C., & Co., Montpelier, Ohio.
Huot Mfg. Co., St. Paul, Minn.
Standard Tool Co., The, Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Warren, J. D., Mfg. Co., Montpelier, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Cases, Flexible Shaft

(See "Cores and Cases, Flexible Shaft")

Cases, Tool, Leatherette

Bonney Forge and Tool Works, Allentown, Pa.
Forged Steel Products Co., Newport, Pa.

Casing, Steam Pipe

(See "Covering or Casing, Steam Pipe")

Casing or Tubing, Well

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Cast Iron Pipe Co., Birmingham, Ala.
Bethlehem Steel Co., Bethlehem, Pa.
Littleford Bros., Cincinnati, Ohio.
National Tube Co., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Sacramento Pipe Works, Sacramento, Calif.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh.

Casings, Elevator, Steel and Wood

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chain Belt Co., Milwaukee, Wis.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Fairfield Engineering Co., Marion, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Casters, Truck

All Steel Welded Truck Corp., Rockford, Ill.
Armstrong Truck Co., North Wales, Pa.
Bassick Co., The, Bridgeport, Conn.
Bond Foundry and Machine Co., Manheim, Pa.
Colson Corp., The, Elyria, Ohio.
Divine Brothers Co., Utica, N. Y.
Darnell Corporation, Long Beach, Calif.
Fairbanks Co., The, New York, N. Y.
Faultless Caster Corporation, Evansville, Ind.
Goodrich, B. F., Co., The, Akron, Ohio. (Rubber)
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Harris & Reed Mfg. Co., Chicago, Ill.
Illinois Iron & Bolt Co., Carpentersville, Ill.

(Continued on page 92)

Fairbanks Casters

Fairbanks Casters are made of grey iron in stationary and swivel types.

They can be furnished with Plain Iron, Rubber Tired, Divine Canvas Cushion or other types of wheels, and with Plain Cut Pin or Hyatt Roller Bearings.

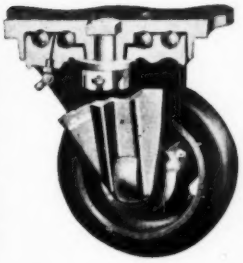
Write for Catalog 955 and our proposition to distributors.

The Fairbanks Co.
19 E. 4th St. New York, N. Y.
Factories: Binghamton, N. Y., Rome, Ga.

Bond

TRUCK CASTERS

A RIGHT one for EVERY customer. Smart supply men know it pays to carry Bond "Built-for-the-job" Truck Casters. Bond distributors never have to sell a substitute because the Bond line is *complete*—because there is a Bond Caster designed for every purpose—right for every working condition. Inquire about our distributor arrangements.



Bond 1523-A Series Swivel Caster

BOND FOUNDRY & MACHINE CO.
MANHEIM, LANC. CO., PA.

SATISFIED CUSTOMERS MEAN

REPEAT BUSINESS

Service ForgeWeld Casters are super-strong truck wheel units. Their outstanding strength lies in drop-forged and structural steel construction—their frictionless performance in the Hyatt bearing wheel, the ball bearing pin and top plate.

ForgeWeld is typical of the complete line—a caster for every industrial use. You can guarantee satisfaction when you sell Service Casters.

SERVICE CASTER & TRUCK CO.,
529 N. Albion St.
Albion, Michigan

SERVICE CASTERS

1937's Best Sellers will be FAULTLESS

Preferred by every major industry for their ability to consistently cut replacement costs and prevent breakdown delays.

Plan now for increased sales in 1937 with "The Line of Least Resistance."

Write for new Condensed Catalog Sheet F-11236

100 Series—Swivel Truck Casters

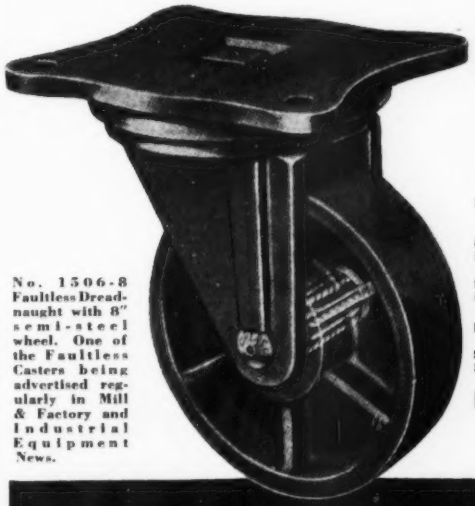
Ruberex Semi-Steel Style No.	Style No.	Diameter of Wheel	Overall Height	Size of Plate	Weight Per Caster
121-2	108-2	2"	2 3/16"	1 7/8"x2 3/16"	3/4 Lb.
121-2½	108-2½	2½"	3¼"	2¾"x3¾"	1¼ Lbs.
121-3	108-3	3"	3 13/16"	3 1/8"x4 1/8"	2 Lbs.
121-4	108-4	4"	5"	4"x5"	3¾ Lbs.
121-5	108-5	5"	6½"	5 1/16"x5⅞"	7¼ Lbs.
121-6	108-6	6"	7 5/16"	5 15/16"x6 9/16"	11¾ Lbs.

500 Series—Rigid Truck Casters

Ruberex Style No.	Semi-Steel Style No.	Diameter of Wheel	Overall Height	Size of Plate	Weight Per Caster
521-2½	508-2½	2½"	3¼"	2¼"x4½"	1 Lb.
521-3	508-3	3"	3 13/16"	2½"x5"	2 Lbs.
521-4	508-4	4"	5"	3 1/8"x6¼"	2¾ Lbs.
521-5	508-5	5"	6½"	3⅜"x7¼"	4½ Lbs.
521-6	508-6	6"	7 5/16"	4¼"x8⅞"	10½ Lbs.

200 Series—Heavy Duty Swivel Truck Casters

Semi-Steel Style No.	Diameter of Wheel	Kind of Bearing	Overall Height	Size of Plate	Weight Each
206-5	5"	Hyatt	6 9/16"	5" x 5¾"	7¼ Lbs.
206-6	6"	Hyatt	7 9/16"	6" x 6⅝"	11¾ Lbs.
208-5	5"	Plain	6 9/16"	5" x 5¾"	7¼ Lbs.
208-6	6"	Plain	7 9/16"	6" x 6⅝"	11¾ Lbs.



No. 1506-8 Faultless Dreadnaught with 8" semi-steel wheel. One of the Faultless Casters being advertised regularly in Mill & Factory and Industrial Equipment News.

Dreadnaught—Heavy Duty

Style No.	Kind of Plate	Kind of Wheel	Overall Height	Approx. Weight Each
1506-8	Swivel	Semi-Steel	10⅝"	44 Lbs.
1516-8	Swivel	Rubber Tread	10⅝"	44 Lbs.
1706-8	Rigid	Semi-Steel	10½"	36½ Lbs.
1716-8	Rigid	Rubber Tread	10½"	32 Lbs.

Hyatt Bearing Wheels, Dia. and Face 8"x2½"
Hub Length 3"—Axle ⅝".
Swivel plate 8x9½, holes C-C 7½x6.
Rigid plate 6x9⅞, holes C-C 7½x3⅞.

FAULTLESS CASTER CORPORATION
Evansville, Indiana

Representatives in Principal Cities
Canadian Factory: Stratford, Ontario

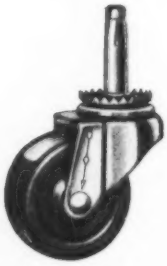
FAULTLESS CASTERS FOR INDUSTRY

BaSSick

CASTERS

FOR EVERY PURPOSE

Casters for everything from tea tables to ten ton trucks



The most complete line of casters and floor protection equipment, made by the largest manufacturer of casters in the world, backed by a fair sales policy for distributors.

Stock BUY FROM DISTRIBUTORS FOR ECONOMY Service

THE BASSICK COMPANY
BRIDGEPORT, CONN.

BaSSick
CASTERS

Casters, Truck

(Continued from page 90)

Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
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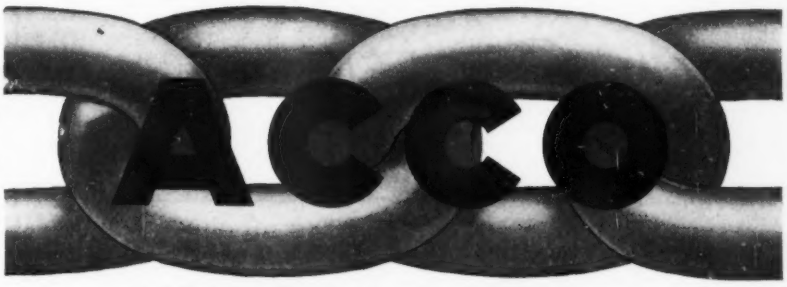

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Corbin Screw Corp., The, New Britain, Conn.
Diamond Chain and Mfg. Co., Indianapolis.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Newhall Chain Forge & Iron Co., New York.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.

Chain, Breast

Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Cable

Baldwin-Duckworth Chain Corp., Springfield, Mass.
Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dallett Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Smith & Egge Division of The Turner & Seymour Mfg. Co., Torrington, Conn.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Chain, Coil

Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton, E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Conveyor and Elevator

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Baldwin-Duckworth Chain Corp., Springfield, Mass.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Diamond Chain and Mfg. Co., Indianapolis, Ind.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., Marion, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Moline Malleable Iron Co., St. Charles, Ill.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.

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Say McKAY... and you'll be OK!

The McKay line of Chain is COMPLETE. It includes **everything** in Chain, welded and weldless. EVERYTHING! —from a Dog Chain to an Anchor Chain —from a Trace Chain to a Crane Chain!

The **quality** of every single item in the line is assured by **"McKay's 50 years of knowing how."** And the permanent satisfaction of your Chain Customers is made certain, when you line up with . . .

THE McKAY COMPANY

McKay Bldg. . . . . Pittsburgh, Pa.

(Formerly U. S. Chain & Forging Co.)

Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Chain & Mfg. Co., The, Hartford, Conn.

Chain, Drag

American Chain Co., Inc., Bridgeport.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Moline Malleable Iron Co., St. Charles, Ill.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Dredge

Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Round, David, and Son, Cleveland, Ohio.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Heating Furnace and Boiler

Carroll Chain Co., The, Columbus, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
McKay Co., The, Pittsburgh, Pa. (Boiler)
Mattatuck Mfg. Co., The, Waterbury, Conn.
Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain Hoists

(See "Hoists, Chain")

Chain, Hoist

Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Mfg. Co., The, Columbus, Ohio.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., The, Cleveland.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Round, David, and Son, Cleveland, Ohio.
Sampson Tool Co., Inc., New York, N. Y.
Speidel Elevator Corp., Reading, Pa.
Taylor, S. G., Chain Co., Hammond, Ind.
Union Manufacturing Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Jack

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Sargent & Co., New Haven, Conn.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.
Washburn Co., The, Worcester, Mass.

Chain, Loading

Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Log or Binding

Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Company, Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Murray, D. J., Mfg. Co., Wausau, Wis.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Malleable Iron and Steel Combination

Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Mey Chain Belt Co., Buffalo, N. Y.
Moline Malleable Iron Co., St. Charles, Ill.
Palmer-Bee Co., Detroit, Mich.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Marine

Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Chain, Pipe Hanging

Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
McKay Co., The, Pittsburgh, Pa.

Chain, Plumbers'

Bernz, Otto, Co., Inc., Rochester, N. Y.
Carroll Chain Co., The, Columbus, Ohio.

HOW TO HANDLE IT

IF *IT* IS POWER
IF *IT* IS MATERIAL

THESE PROBLEMS CAN BE SOLVED BY REX CHAIN ENGINEERS . .

Rex Chain Engineers KNOW the chain needs of every industry.

Shown on this page are some of the standard types of most general application—many of them—notably Griplock, Unicast, Durobar, Chabelco—were originally developed by the Chain Belt Company.

Also available in the complete Rex Line are many special chains, built for particular industries: such as steel mills, construction machinery, sugar mills, lumber, oil, mines and quarries.

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1622 W. Bruce Street **Milwaukee, Wisconsin**
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REX

DETACHABLE

An inexpensive general service chain for elevator, conveyor and transmission service at medium speed.

REX

PINTLE

A moderate cost chain with strength and serviceability for general conveyor and power transmission work.

REX

RIVETED MILL CHAIN

A stronger, longer lasting mill chain for use under extremely severe conditions.

REX

GRIPLOCK

The most durable and highly developed malleable chain. The Hidden Shoulders of the Griplock Joint greatly increase its strength, live-bearing area, and working life.

REX

UNICAST

This one-piece link roller chain—with the roller cast in place—effectively solves the problem of eccentric loads on double strand conveyors.

REX

DROP FORGED

A conveyor chain that flexes in irregular paths. Especially useful in remodeling, as it is adaptable to changed layouts.

REX

DUROBAR

The added metal on the barrel of the block links makes this a longer lasting combination chain—especially when cast in Z-Metal.

REX

LEY BUSHED

Designed for exceptionally severe service conditions handling gritty and abrasive materials.

REX

CHABELCO

A highly developed steel chain with Rex Press Fit and Unit Link construction. For heavy duty drives and conveyors.

REX

ROLLER CHAIN

The most highly finished chain on the market today for long service and low cost on high speed drives.

REX

DRAW BENCH AND CAR HAUL

For metal drawing, steel transfer, and car haul service. These chains have extremely high tensile strengths—permit tremendous loads.

REX

CHAIN BELT COMPANY
of MILWAUKEE

Drive and Conveyor Chains

UMI

Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Crane Co., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
McKay Co., The, Pittsburgh, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Smith & Egge, Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.
Washburn Co., The, Worcester, Mass.

Chain, Pocket Wheel

(See "Chain, Block or Pocket Wheel")

Chain, Rafting

(See "Chain, Boom or Rafting")

Chain, Railroad

Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Roller

Baldwin-Duckworth Chain Corp., Springfield, Mass.
Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cullman Wheel Co., Chicago, Ill.
Diamond Chain and Mfg. Co., Indianapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., Inc., Milwaukee, Wis.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Morse Chain Co., Ithaca, N. Y.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Chain & Mfg. Co., The, Hartford, Conn.

Chain, Safety

Bernz, Otto, Co., Inc., Rochester, N. Y.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Corbin Screw Corp., The, New Britain, Conn.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Sargent & Co., New Haven, Conn.
Smith & Egge Division of The Turner Seymour Mfg. Co., Torrington, Conn.
Taylor, S. G., Chain Co., Hammond, Ind.
Washburn Co., The, Worcester, Mass.

Chain, Sawmill

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Forging Co., Cleveland.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
International Chain & Mfg. Co., York, Pa.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Moline Malleable Iron Co., St. Charles, Ill.
Murray, D. J., Mfg. Co., Wausau, Wis.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain Shackles and Clevises

(See "Shackles and Clevises, Chain")

Chain, Sling

Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Round, David, and Son, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Sprocket Wheel

Baldwin-Duckworth Chain Corp., Springfield, Mass.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Boston Gear Works, Inc., North Quincy, Mass.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., Cleveland, O.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Cullman Wheel Co., Chicago, Ill.
Diamond Chain and Mfg. Co., Indianapolis.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Haskell, Wm. H., Mfg. Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Medart Co., The, St. Louis, Mo.
Mey Chain Belt Co., Buffalo, N. Y.
Moline Malleable Iron Co., St. Charles, Ill.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co., New York.
Palmer-Bee Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Pyott Foundry & Machine Co., Chicago, Ill.
Ramsey Chain Co., Inc., Albany, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Chain & Mfg. Co., The, Hartford, Conn.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Steam Shovel

Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Marion Steam Shovel Co., Marion, Ohio.
Mey Chain Belt Co., Buffalo, N. Y.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Round, David, and Son, Cleveland, Ohio.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Stud Link

Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Manufacturing Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Taylor, S. G., Chain Co., Hammond, Ind
Upson-Walton Co., The, Cleveland, Ohio.

Chain, Transmission

Baldwin-Duckworth Chain Corp., Springfield, Mass.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chicago Rawhide Mfg. Co., The, Chicago.
Cullman Wheel Co., Chicago, Ill.

Diamond Chain and Mfg. Co., Indianapolis, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Ramsey Chain Co., Inc., Albany, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Chain & Mfg. Co., The, Hartford, Conn.

Chain, Transmission, Silent

Boston Gear Works, Inc., North Quincy, Mass.
Cullman Wheel Co., Chicago, Ill.
Diamond Chain and Mfg. Co., Indianapolis, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., Ithaca, N. Y.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Ramsey Chain Co., Inc., Albany, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Chain & Mfg. Co., The, Hartford, Conn.

Chain, Truck

Baldwin-Duckworth Chain Corp., Springfield, Mass.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Diamond Chain and Mfg. Co., Indianapolis.
Giant Grip Mfg. Co., Oshkosh, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York, N. Y.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Pyrene Manufacturing Co., Newark, N. J.
Taylor, S. G., Chain Co., Hammond, Ind.
Whitney Chain & Mfg. Co., The, Hartford, Conn.

Chain, Weldless

Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York, N. Y.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chains, Sash

Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
McKay Co., The, Pittsburgh, Pa.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.

Chains, Wagon

Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.

Chairs, Factory, Steel

(See "Stools and Chairs, Factory, Steel")

Checks—Tool, Time and Pay

Joslin, A. D., Mfg. Co., Manistee, Mich.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
Scovill Mfg. Co., Waterbury, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Chests, Tool, Steel

Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Cleveland Wire Spring Co., The, Cleveland.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Hinsdale Manufacturing Co., Chicago, Ill.
Kennedy Mfg. Co., Van Wert, Ohio.
Littleford Bros., Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Outing Manufacturing Co., Inc., Elkhart, Ind.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.

Chests, Tool, Suit Case

Gerstner, H., & Sons, Dayton, Ohio.

Chests, Tool, Wood

Economy Manufacturing Co., Philadelphia.
Gerstner, H., & Sons, Dayton, Ohio.
Lufkin Rule Co., The, Saginaw, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.

Chippers, Pneumatic

(See "Tools, Pneumatic")

Chisel Blanks

American Swiss File & Tool Co., Elizabeth, N. J.
Bethlehem Steel Co., Bethlehem, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Marchant, Geo. F., Co., Chicago, Ill.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Chicago, Ill.
Van Dorn Electric Tool Co., The, Towson, Md.

Chisels, Blacksmiths'

American Swiss File & Tool Co., Elizabeth, N. J.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Hubbard & Co., Pittsburgh, Pa.
Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Klein-Logan Co., The, Pittsburgh, Pa.
Kraeuter & Co., Inc., Newark, N. J.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

Chisels, Box

American Swiss File & Tool Co., Elizabeth, N. J.
Drew, C., & Co., Kingston, Mass.

Chisels—Brick, Tile, Stone Cutters', Etc.

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Evansville Tool Works, Inc., Evansville, Ind.
Kraeuter & Co., Inc., Newark, N. J.
Marshalltown Trowel Co., Marshalltown, Iowa.
Mayhew Steel Products, Inc., Shelburne, Falls, Mass.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.

AMERICAN SWISS
CHISELS

A Complete Line Including
Brick, Tile, Cold, Cape, Diamond Point, Round Nose, Floor, Ripping, Plumbers and Plugging Chisels

ONLY THE BEST

American Swiss File and Tool Co.
ELIZABETH, N. J.

Van Dorn Electric Tool Co., The, Towson, Md.
Vulcan Tool Mfg. Co., Quincy, Mass.

Chisels, Carpenters'

Crescent Tool Co., Jamestown, N. Y.
Greenlee Bros. & Co., Rockford, Ill.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Sandvik Saw & Tool Corp., Minneapolis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.

Chisels, Calking

(See "Tools, Calking")

Chisels, Chipping, Hand

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Evansville Tool Works, Inc., Evansville, Ind.
Hubbard & Co., Pittsburgh, Pa.
Independent Pneumatic Tool Co., Chicago.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Plomb Tool Co., Los Angeles, Calif.
Scully-Jones & Co., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.

Chisels, Chipping, Pneumatic and Electric Hammer

Bethlehem Steel Co., Bethlehem, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Dallett Co., The, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Hubbard & Co., Pittsburgh, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Scully-Jones & Co., Chicago, Ill.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Van Dorn Electric Tool Co., The, Towson, Md.

Chisels—Cold, Cape, Diamond Point and Round Nose

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Billings & Spencer Co., The, Hartford, Conn.
Black & Decker Mfg. Co., The, Towson, Md.

UMI

Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Evansville Tool Works, Inc., Evansville, Ind.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hunt, Geo. L. Mfg. Co., Boscobel, Wis.
Johnson, William, Inc., Newark, N. J.
Klein-Logan Co., The, Pittsburgh, Pa.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N.Y. (Cold only)
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Mueller Co., Decatur, Ill.
Peck, Stow & Wilcox Co., The, Southampton, Conn. (Cold only)
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Syntron Co., Pittsburgh, Pa.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Tuck Mfg. Co., Brockton, Mass.
Van Dorn Electric Tool Co., The, Towson, Md.
Vaughan & Bushnell Mfg. Co., Chicago.
Vlchek Tool Co., The, Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.

Chisels, Electric Hammer

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Millers Falls Co., Greenfield, Mass.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Van Dorn Electric Tool Co., The, Towson, Md.

Chisels, Floor

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Evansville Tool Works, Inc., Evansville, Ind.
Johnson, William, Inc., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.

Chisels, Mortising, Hollow

Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Star Bit & Tool Co., Rockford, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Chisels, Plugging

American Swiss File & Tool Co., Elizabeth, N. J.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Plomb Tool Co., Los Angeles, Calif.

Chisels, Ripping

Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Manufacturers' Belt Hook Co., Chicago.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Chisels, Tile

(See "Chisels—Brick, Tile, Stone Cutters', Etc.")

Chisels, Track

Evansville Tool Works, Inc., Evansville, Ind.
Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.

Chisels and Gouges, Turning

Bernz, Otto, Co., Inc., Rochester, N. Y.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia.
Greenlee Bros. & Co., Rockford, Ill.
Leetonia Tool Co., The, Leetonia, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.
Sandvik Saw & Tool Corp., Minneapolis.

Chisels, Wood, All-Steel

Bernz, Otto, Co., Inc., Rochester, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, New York.
Drew, C., & Co., Kingston, Mass.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Forest City Bit & Tool Co., Rockford, Ill.
Johnson, William, Inc., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Plomb Tool Co., Los Angeles, Calif.
Sandvik Saw & Tool Corp., Minneapolis.

Chucking Lathes

(See "Lathes, Chucking," and "Lathes, Turret")

Chucks, Air

Cushman Chuck Co., The, Hartford, Conn.
Hannifin Mfg. Co., Chicago, Ill.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Mfg. Co., New Britain, Conn.

Chucks, Automatic

Chicago Tool & Engineering Co., Chicago.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Whiton Chuck Co., The, New London, Conn.

Chucks, Boring and Turning Mill

Gairing Tool Co., The, Detroit, Mich.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Car Wheel

Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Combination

Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Gairing Tool Co., The, Detroit, Mich.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co,, The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Drill and Tap

Almond, T. C., Inc., Ashburnham, Mass.
Atlas Press Co., Kalamazoo, Mich.
Black & Decker Mfg. Co., The, Towson, Md.
Brown, R. H., & Co., New Haven, Conn.
Chicago Tool & Engineering Co., Chicago.
Collis Co., The, Clinton, Iowa.
Cushman Chuck Co., The, Hartford, Conn.
Ettco Tool Co., Brooklyn, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Independent Pneumatic Tool Co., Chicago.
Jacobs Manufacturing Co., The, Hartford, Conn.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass. (Drill chuck only)
North Bros. Mfg. Co., Philadelphia, Pa.
Procunier Safety Chuck Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Manufacturing Co., New Britain, Conn.
Van Dorn Electric Tool Co., The, Towson, Md.
Wetscott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Drill, Quick Change Collet

Chicago Tool & Engineering Co., Chicago.
Collis Co., The, Clinton, Iowa.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago, Ill.

Chucks, Drill Press

Champion Blower and Forge Co., Lancaster, Pa.
Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Ettco Tool Co., Brooklyn, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hannifin Manufacturing Co., Chicago.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Procunier Safety Chuck Co., Chicago, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Standard Tool Co., The, Cleveland, Ohio.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

Chucks, Electrically Operated

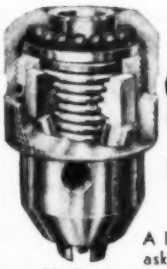
Cushman Chuck Co., The, Hartford, Conn.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.

Chucks, Gear Holding

Cushman Chuck Co., The, Hartford, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Whiton Chuck Co., The, New London, Conn.

Chucks, Geared Scroll

American Die & Tool Co., Inc., Reading, Pa.
Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Horton, E., & Son Co., The, Windsor Locks, Conn.



Ettco

Hand Operated
Key Less
DRILL CHUCK

A lot of your customers ask for them. A lot more would if you would put the bee on 'em once in awhile.

ETTCO TOOL CO.
BROOKLYN, N. Y.

Millers Falls Co., Greenfield, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Independent

Atlas Press Co., Kalamazoo, Mich.
Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Lathe

Atlas Press Co., Kalamazoo, Mich.
Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Lever Scroll

Horton, E., & Son Co., The, Windsor Locks, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Whiton Chuck Co., The, New London, Conn.

Chucks, Magnetic

Sampson Tool Co., Inc., New York, N. Y.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Chucks, Milling Machine

Brown & Sharpe Mfg. Co., Providence.
Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Hannifin Manufacturing Co., Chicago.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Van Norman Machine Tool Co., Springfield, Mass.
Westcott Chuck Co., Oneida, N. Y.

Chucks and Holders, Nipple

American Die & Tool Co., Inc., Reading, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Curtis & Curtis Co., The, Bridgeport, Conn.

Chucks, Planer

Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.

Chucks, Ring Wheel

Skinner Chuck Co., The, New Britain, Conn.

Chucks, Spring

Brown & Sharpe Mfg. Co., Providence, R. I.

Chucks, Tapping Machine

Chicago Tool & Engineering Co., Chicago.
Ettco Tool Co., Brooklyn, N. Y.
Gairing Tool Co., The, Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Independent Pneumatic Tool Co., Chicago.
Jacobs Manufacturing Co., The, Hartford, Conn.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.
Skinner Chuck Co., The, New Britain, Conn.
Union Mfg. Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

Chucks, Universal

Atlas Press Co., Kalamazoo, Mich.
Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Independent Pneumatic Tool Co., Chicago.
Jacobs Manufacturing Co., The, Hartford, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Wrenchless

Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Ettco Tool Co., Brooklyn, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Jacobs Manufacturing Co., The, Hartford, Conn.
Millers Falls Co., Millers Falls, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago.
Skinner Chuck Co., The, New Britain, Conn.
Whiton Chuck Co., The, New London, Conn.

Chutes—Coal, Ore and Concrete

Beaumont, R. H., Co., Philadelphia, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Canton Foundry & Machine Co., The, Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
General Wheelbarrow Co., The, Cleveland, Ohio. (Coal only)
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lansing Co., Lansing, Mich.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Red Star Products Corp., Cleveland, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Sackett, H. B., Screen & Chute Co., Chicago.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Truscon Steel Co., Youngstown, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chutes, Spiral

Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Mathews Conveyor Co., Ellwood City, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Circulators, Air

National Fan & Blower Corp., Chicago, Ill.

Manufacturers'

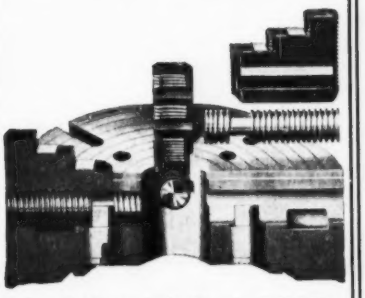
Street Addresses

will be found in the

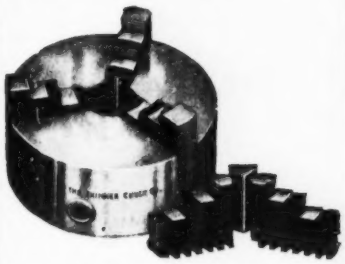
"Names and Addresses"

Section

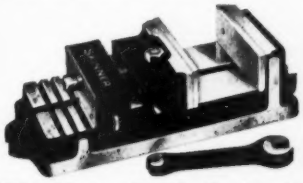
SKINNER CHUCKS



4-Jaw Independent Chuck, Solid Reversible Jaws—Sizes 4 to 36"—Iron or Steel Body—Light, Medium or Heavy Duty. A recognized standard in all high-grade shops.



3-Jaw Universal Geared Scroll Chuck, 2 sets of jaws—Sizes 3 to 18"—Iron or Steel Body—Light, Medium or Heavy Duty. Has great gripping power and recommended for production work.



"The Handy Tool"—Designed for holding work on a drill table. Should be in every machine shop. Made in five sizes—2½", 3½", 4½", 5½" and 7½".

The above are only three items of a large and complete line of Chucks. See directory in this publication for additional types.

For Power Operated Chucks write for Bulletin No. 48-P.

Trade Mark

THE SKINNER CHUCK COMPANY
NEW BRITAIN, CONN. U. S. A.

CLAMPS

TRADE MARK
Jorgensen
REG U S PAT OFF

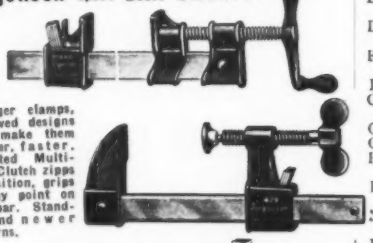
Grip at any angle

Handscrews

The standard in industry. Buyers insist on Genuine Jorgensen Handscrews for quality, for jaws that will not split or slip, for handles that will not loosen, for swivel nuts that will not strip. Handscrews are ideal for woodwork, for welding, for holding fine surfaces without marring.

Recognized by the "Jorgensen" on the jaws.

Jorgensen High-Speed BAR CLAMPS



Stronger clamps, improved designs that make them handier, faster. Patented Multi-Disc Clutch zipps to position, grips at any point on the bar. Standard and newer patterns.

Jorgensen *Drop Forged* "C" Clamps

Light and heavy patterns, forged from special steel and heat treated. Proportioned for greatest strength. Weights for all needs.

"MARK" Malleable Iron "C" CLAMPS

The Malleable Iron Clamps known to tool buyers everywhere. The name is recognized as a guarantee of high quality. Carriage, Quick Adjustable, and Machinist types.

"MARK" Welders Clamps

Heavy, rigid clamps with powerful quick action, "crank" screw. Stand heating and cooling, heavy ribbed design absorbs side strain. Heavy full length screws.

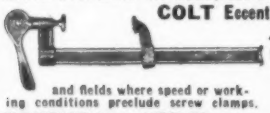
"PONY" Lathe Dogs

Low priced Lathe Dogs that meet all ordinary turning and grinding requirements. Efficient design with heavy boss that permits substitution of larger screws. 18 sizes.

Pony (on pipe) CLAMPS

Pony Fittings go on ordinary ¾" pipe to make clamps of any size. A light, strong, low priced clamp with patented Multi-Disc Clutch. Standard equipment in schools and in industry. Extensively used in home work shops (advertised in leading homecraft magazines) and for concrete construction—for making and holding forms, etc.

COLT Eccentric CLAMPS



Fast acting, "holding" clamps for construction and fields where speed or working conditions preclude screw clamps.

PONY Miniature "C" Clamps

Quality tools in miniature with "a thousand uses". Sizes from 1" to 2½" (depth and opening). Nine standard shapes and special designs. There are volume sales wherever introduced.

Write for Catalog. The most complete line of clamps.

ADJUSTABLE CLAMP CO.
"The Clamp Folks"
413 N. Ashland Ave., CHICAGO, U. S. A.

Clamps, Adjustable

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Ruleta Co., Inc., New York, N. Y.
Tallman Manufacturing Co., Shelbyville, Ill.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.
Tessmer Machine & Tool Co., Detroit, Mich.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Clamps and Brackets, Beam or Girder

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Crane Co., Chicago, Ill.
Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Fee & Mason Mfg. Co., Inc., New York.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ingalls Iron Works Co., The, Birmingham, Ala.
Newbury Manufacturing Co., Monroe, N. Y. (For pipe hangers)
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Walworth Co., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Clamps, Belt

Chicago Rawhide Mfg. Co., The, Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Manufacturers' Belt Hook Co., Chicago.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg Pa.

Clamps, Bolt, Ship and Dock Builders'

Cincinnati Tool Co., The, Cincinnati, Ohio.
Tallman Manufacturing Co., Shelbyville, Ill.

Clamps, Body

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

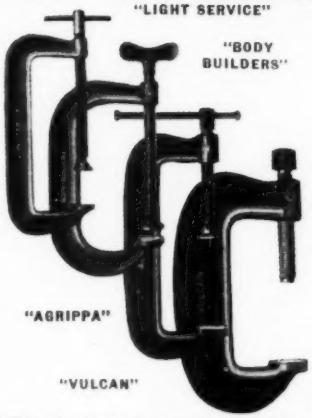
Clamps, Boiler

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Clow, James B., & Sons, Chicago, Ill.

Clamps, "C"

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Belden Machine Co., The, New Haven, Conn.
Billings & Spencer Co., The, Hartford, Conn.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.

DROP-FORGED "C" CLAMPS



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Sargent & Co., New Haven, Conn.
Western Hdwe. Mfg. Co., Milwaukee, Wis.
Williams, J. H., & Co., New York, N. Y.

Clamps, Cabinet Makers'

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Malleable Iron Fittings Co., Branford, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt, Wm. E., Mfg. Co., New Haven, Conn.
Sargent & Co., New Haven, Conn.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

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Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Hubbard & Co., Pittsburgh, Pa.
Klein, M., & Son, Chicago, Ill.
Lamson & Sessions Co., The, Cleveland.
McMillan's, W. H., Sons, New York, N. Y.
Marion Malleable Iron Works, Marion, Ind.
Starline, Inc., Harvard, Ill.
U. S. Expansion Bolt Co., New York, N. Y.
Upson-Walton Co., The, Cleveland, Ohio.

Clamps, Carriage Makers'

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Channon, J. H., Corp., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Sargent & Co., New Haven, Conn.
Williams, J. H., & Co., New York, N. Y.

Clamps, Clip, Fuse

Ideal Commutator Dresser Co., Sycamore, Ill.

Clamps, Collar Leak

Dresser, S. R., Mfg. Co., Bradford, Pa.
Skinner, M. B., Co., South Bend, Ind.

Clamps, Column

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Red Star Products Corp., Cleveland, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Concrete Construction

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Batavia, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Clamps, Eccentric

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Girder

(See "Clamps and Brackets, Beam or Girder")

Clamps, Guard Rail

American Steel & Wire Co., Chicago, Ill.
Hubbard & Co., Pittsburgh, Pa.
Upson-Walton Co., The, Cleveland, Ohio.

Clamps, Guy and Pole

Coffing Hoist Co., Danville, Ill. (Guy wire clamps)
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Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Newhall Chain Forge & Iron Co., New York.

Clamps, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
American Stamping Co., Battle Creek, Mich.
Asch & Co., Inc., New York, N. Y.
Atlas Brass Foundry, Los Angeles, Calif.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Pneumatic Tool Co., New York.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Clamps, Inc., Brooklyn, N. Y.
Clancy, J. R., Inc., Syracuse, N. Y.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
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Malleable Iron Fittings Co., Branford, Conn.
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Mulconroy Company, Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Nunn Brass Works, Rochester, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Wittek Mfg. Co., Chicago, Ill.

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Bastian Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Clamps, Inc., Brooklyn, N. Y.
Clancy, J. R., Inc., Syracuse, N. Y.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Goodall Rubber Co., Philadelphia, Pa.
Kelly Machinery Co., Chicago, Ill.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Mulconroy Company, Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Washburn Co., The, Worcester, Mass.
Wittek Mfg. Co., Chicago, Ill.

Clamps, Hydrant

Detroit Brass & Malleable Works, Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
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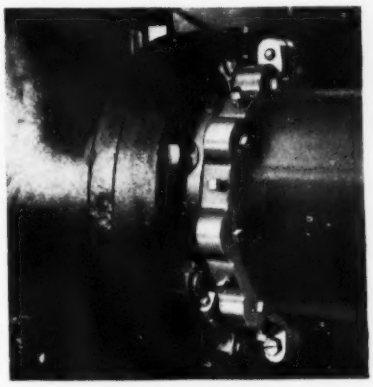

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Brown & Sharpe Mfg. Co., Providence, R. I.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Malleable Iron Fittings Co., Branford, Conn.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Starrett, L. S., Co., The, Athol, Mass.
Williams, J. H., & Co., New York, N. Y.

Clamps, Mitre

Batavia Clamp Co., Inc., Batavia, N. Y.

Clamps, Parallel, Machinists' and Toolmakers'

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
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Standard Shop Equipment Co., Philadelphia, Pa.
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Williams, J. H., & Co., New York, N. Y.

Clamps, Pipe, Extension

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Crane Co., Chicago, Ill.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Walworth Co., New York, N. Y.

Clamps, Pipe Joint

Dresser, S. R., Mfg. Co., Bradford, Pa.
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Sacramento Pipe Works, Sacramento.
Skinner, M. B., Co., South Bend, Ind.

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Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Ellis & Ford Mfg. Co., Detroit, Mich.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Modern Mfg. Co., The, Cleveland, Ohio.
Skinner, M. B., Co., South Bend, Ind.

Clamps, Pipe Repair

Clow, James B., & Sons, Chicago, Ill.
Mueller Co., Decatur, Ill.
Skinner, M. B., Co., South Bend, Ind.
Smooth-On Manufacturing Co., Jersey City, N. J.
Yarnall-Waring Co., Philadelphia, Pa.

Clamps, Quick Acting

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Batavia, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Rule

Brown & Sharpe Mfg. Co., Providence.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.

Clamps, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Clamps, Sheet Metal Handling

Never Slip Safety Clamp Co., New York.

Clamps, Splicing

Clamps, Inc., Brooklyn, N. Y.
Klein, M., & Sons, Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.

Clamps, Steel Bar

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Strap

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Crane Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Williams, J. H., & Co., New York, N. Y.

Clamps, Vise

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland.
North Bros. Mfg. Co., Philadelphia, Pa.
Williams, J. H., & Co., New York, N. Y.

Clamps, Wire Rope

(See "Clips and Clamps, Wire Rope")

Clamps, Wood Bar

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Clamps, Woodworkers'

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Taylor, Jas. L., Mfg. Co, Poughkeepsie, N. Y.

Clay, Fire

(See "Fire Clay")

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Crane Co., Chicago, Ill.
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Huyette, Paul B., Co., Inc., Philadelphia.
Mall Tool Co., Chicago, Ill.
Murray, William H., Brooklyn, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Self Cleaning Strainer Co., Chicago, Ill.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Wilson, Thomas C., Inc., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cleaners, Closet

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Hercules Chemical Co., Inc., New York.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Cleaners, Condenser Tube

Coleman, Allan J., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Hollow Center Packing Co., Cleveland, O.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Wilson, Thomas C., Inc., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cleaners, File

Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hayes File Co., Detroit, Mich.
Heller Brothers Co., Newark, N. J.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.

Cleaners, Flue

Bate Boiler Efficiency Co., Conshohocken, Pa.
Crane Co., Chicago, Ill.
Crowell, D. J., & Crowell, F. G., Buffalo.
Desolvo Manufacturing Co., Pittsburgh, Pa.
Doolittle, L. G., Binghamton, N. Y.
Huyette, Paul B., Co., Inc., Philadelphia.
Mall Tool Co., Chicago, Ill.
Murray, William H., Brooklyn, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Wilson, Thomas C., Inc., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cleaners, Hand

(See "Soap and Cleaners, Hand")

Cleaners, Maintenance

Ford, J. B., Co., Wyandotte, Mich.
Quigley Company, Inc., New York, N. Y.

Cleaners, Metal

American Solder & Flux Co., Philadelphia.
Baum's Castorine Co., Rome, N. Y.
Blue Seal Chemical Co., Roselle Park, N. J.
Boyle, A. S., Co., The, Cincinnati, Ohio.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Ford, J. B., Co., The, Wyandotte, Mich.
Grady Mfg. Co., The, Long Island City, N. Y.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Quigley Co., Inc., New York, N. Y.

Cleaners, Pipe Coil

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Ford, J. B., Co., The, Wyandotte, Mich.
Hunter Pressed Steel Co., Lansdale, Pa.
Standard Appliance Corp., The, Dayton, O.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

Cleaners, Sewer and Drain Pipe, Chemical

Coleman, Allan J., Chicago, Ill.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Desolvo Manufacturing Co., Pittsburgh.
Flash Chemical Co., Cambridge, Mass.
Ford, J. B., Co., The, Wyandotte, Mich.
Hercules Chemical Co., Inc., New York.
Pacific Chemical Co., Los Angeles, Calif.
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Rapid Spring Co., The, Pittsburgh, Pa.
Standard Appliance Corp., The, Dayton, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

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Baker-Hansen Mfg. Co., Alameda, Calif.
Black & Decker Mfg. Co., The, Towson, Md.
Breuer Electric Manufacturing Co., Chicago, Ill.
Clements Mfg. Co., Chicago, Ill.
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Electric Vacuum Cleaner Co., Inc., Cleveland, Ohio.
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Ideal Commutators Dresser Co., Sycamore, Ill.
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Standard Electrical Tool Co., The, Cincinnati, Ohio.
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Clements Mfg. Co., Chicago, Ill.
Electric Blower Co., Boston, Mass.
Electric Vacuum Cleaner Co., Inc., Cleveland, Ohio.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill.
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Sturtevant, B. F., Co., Hyde Park, Boston.
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Tool is no bigger than the flat of your hand but has tremendous cutting power. Operates with ratchet wrench. Fits tool kit. Easy to use in tight places. Gets into channels of auto frames, etc. Cuts bolts, cuts rods, splits nuts.

Write for descriptive circular.

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EVERETT MASS

Cleaners, Window

(See "Squeegees")

Cleaning Machines for Metal Parts

(See "Machines, Cleaning, for Metal Parts")

Cleanser, Closet, Chemical Compound

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Desolvo Manufacturing Co., Pittsburgh, Pa.
Hercules Chemical Co., Inc., New York.

Clevises, Chain

(See "Shackles and Clevises, Chain")

Clippers—Bolt, Rivet and Wire

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Carolus Manufacturing Co., Sterling, Ill.
Forged Steel Products Co., Newport, Pa.
Porter, H. K., Inc., Everett, Mass.
Roberts Manufacturing Co., Everett, Mass.

Clips, Rail

Bethlehem Steel Co., Bethlehem, Pa.

Clips and Clamps, Wire Rope

American Cable Co., Inc., Wilkes-Barre, Pa.
American Hoist & Derrick Co., St. Paul.
American Steel & Wire Co., Chicago, Ill.
Clamps, Inc., Brooklyn, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The Cleveland, O.
Marion Malleable Iron Works, Marion, Ind.
Mockbee, C. M., Co., Cincinnati, Ohio.
Newhall Chain Forge & Iron Co., New York.
Roebling's, John A., Sons Co., Trenton, N. J.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
U. S. Expansion Bolt Co., New York, N. Y.
Wickwire Spencer Steel Co., New York.
Williamsport Wire Rope Co., Williamsport, Pa.

PORTER SWIVEL HEAD
★ *Bolt Clipper* ★

The new tool—with cutting head set on swivel joint so that it can be used with handles at any angle. Full power regardless of position. Enables operator to get into difficult corners—and around the corners. Cuts bolts, rods, rivets and wires. Write for descriptive circular.

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Clocks, Watchmen's

Chicago Watchman's Clock Co., Chicago.
Detex Watchclock Corp., Chicago, Ill.
Simplex Time Recorder Co., Gardner, Mass.

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(See "Door Openers and Closers")

Cloth, Asbestos

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Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
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Non-Inflammable or Airtight & Waterproof

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The airtight and waterproof brattice cloths are furnished with either a jute or cotton duck base.

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Established 1871
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Cloth, Emery

(See "Paper and Cloth—Sand, Emery, Garnet and Flint")

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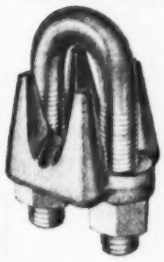

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OR THE
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Newark Testing Sieves

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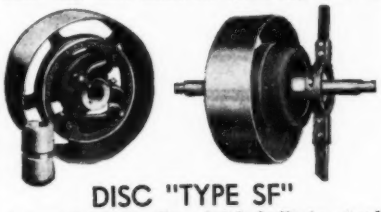
The standard clutch for counter-shaft, line-shaft and other moderate speed applications.



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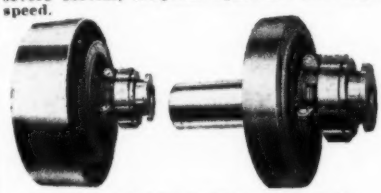

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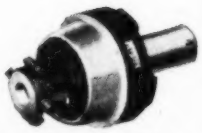
➢ Twyncone ≺ Clutch

Link-Belt ➢ Meeseco ≺ and ➢ Twyncone ≺ Friction Clutches are compact, simple and efficient, easy to operate and adjust. All moving parts are protected by removable covers. Correct design and balance, high grade materials and workmanship, assure smooth, positive engagement and dependable operation. They have been proven by years of successful, reliable service. We also make the Square and Spiral type Jaw Clutches. Send for Catalog No. 1500.



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(See "Grease and Coating, Gear and Pinion")

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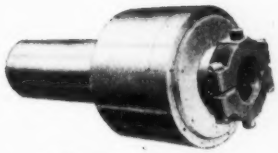
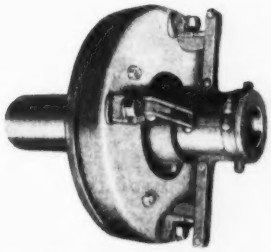


Fully Enclosed Clutches.
Single Point Adjusting from 1 to 200 H.P. per 100 R.P.M.



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From 2 to 600 H.P. per 100 R.P.M.

High Speed or Slow Speed Clutches to fit the installation

Sleeves — Full ball bearing, bronze bushed, or capillary wick oiled cast iron for split or solid pulley, gear, or sprocket.

Friction Surfaces — Metal to metal lubricated or dry burn-proof asbestos to suit the work.

Quick positive or slow easy picking up of the load as required.

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Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
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(See "Faucets and Cocks, Barrel")

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Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Farnan Brass Works Co., The, Cleveland, O.
Haydenville Co., The, Haydenville, Mass.
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Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
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Walworth Co., New York, N. Y.

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Bastian-Blessing Co., Chicago, Ill.
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Chase Brass & Copper Co., Waterbury, Conn.
Farnan Brass Works Co., The, Cleveland, O.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

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Powell, Wm., Co., The, Cincinnati, Ohio.
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Williams, D. T., Valve Co., The, Cincinnati.

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Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Farnan Brass Works Co., The, Cleveland, O.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
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Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.

Cocks and Valves, Gas, Natural

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Cocks, Gas Meter

Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Farnan Brass Works Co., The, Cleveland.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Gas Service

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Farnan Brass Works Co., The, Cleveland.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Cocks, Gasoline

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Merco Nordstrom Valve Co., San Francisco, Calif.
Morrison Bros., Dubuque, Iowa.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Williams, D. T., Valve Co., The, Cincinnati.
Walworth Co., New York, N. Y.

Cocks, Gauge

Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.

Hills-McCanna Corp., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Nason Manufacturing Co., New York.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Rockford Brass Works, Rockford, Ill.
Swift Lubricator Co., Elmira, N. Y.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams Gauge Co., The, N. S, Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Cocks, Gauge, Compression

Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Swift Lubricator Co., Elmira, N. Y.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Wright-Austin Co., Detroit, Mich.

Cocks, Gauge, Self-closing

Bordo, L. J., Co., Inc., Glenside, Pa.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Haydenville Co., The, Haydenville, Mass.
Hills-McCanna Corp., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Nason Manufacturing Co., New York, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Williams Gauge Co., The, N. S., Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Cocks, Hose

American Foundry & Mfg. Co., St. Louis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Baltimore Valve Corp., Baltimore, Md.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Cocks, Hydrant

Atlas Brass Foundry Co., The, Columbus, Ohio.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Hydraulic

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., & Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Mercoid Corp., The, Chicago, Ill.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.

Cocks, Indicator

Belfield, H., & Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Consolidated Brass Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Murray, William H., Brooklyn, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Iron

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Judson Governor Co., The, Rochester, N.Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth, Co., New York, N. Y.

Cocks and Faucets, Lock

Belfield, H., & Co., Philadelphia, Pa.
Cordley & Hayes, New York, N. Y.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Morrison Bros., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Cocks, and Valves, Mixing

Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Detroit Brass & Malleable Works, Detroit.
Empire Brass Co., The, Cleveland, O.
Imperial Brass Manufacturing Co., Chicago, Ill.
Prier Brass Mfg. Co., Kansas City, Mo.
Walworth Co., New York, N. Y.

Cocks, Oil

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit.
Detroit Lubricator Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Merco Nordstrom Valve Co., San Francisco, Calif.
National Transit Pump & Machine Co., Oil City, Pa.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Cocks and Faucets, Oil Wagon and Storage Tank

Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rauch Manufacturing Co., The, Galena, Kans.
Rockford Brass Works, Rockford, Ill.

Cocks, Pet

Atlas Brass Foundry Co., The, Columbus, Ohio.
Belfield, H., Co., Philadelphia, Pa.
Binks Manufacturing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Plug

Alloy Steel Products Co., Linden, N. J.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Harris, Arthur, & Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Judson Governor Co., The, Rochester, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Relief

Binks Manufacturing Co., Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
General Brass Co., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Roberts Brass Mfg. Co., The, Detroit.
Watts Regulator Co., Lawrence, Mass.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

For Street Addresses of Manufacturers See the "Names and Addresses" Section

UMI

For **PLUMBING ITEMS**
Such as
BOILER DRAINS
SILL COCKS
COMPRESSION STOP AND DRAINS
LAUNDRY TRAY FAUCETS
BOILER DRAWOFF COCKS
PLAIN COMPRESSION STOPS
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Summit Avenue and the R. R.
DETROIT, MICH.

Cocks and Faucets, Sill, Compression

Atlas Brass Foundry Co., The, Columbus, Ohio.
Baltimore Valve Corp., Baltimore, Md.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Empire Brass Co., The, Cleveland, Ohio.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersburg Brass Co., The, Cleveland, O.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Cocks, Steam

American Injector Co., Detroit, Mich.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Farnan Brass Works Co., The, Cleveland.
Frederick Iron & Steel Co., The, Frederick, Md
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Co., Coraopolis, Pa.
Huyette, Paul B., Co., Inc., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roberts Brass Mfg. Co., The, Detroit.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Steam Gauge

American Injector Co., Detroit, Mich.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Huyette, Paul B., Co., Inc., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Lonergan, J. E., Co., Philadelphia, Pa.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Sargent Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

Cocks, Stop, and Stop and Waste, Compression

American Injector Co., Detroit, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Baltimore Valve Corp., Baltimore, Md.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Brass Co., Detroit, Michigan.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Empire Brass Co., The, Cleveland, Ohio.
Essex Brass Corp., Detroit, Mich.
Farnan Brass Works Co., The, Cleveland.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Cocks, Stop, and Stop and Waste, Ground Key

American Injector Co., Detroit, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Farnan Brass Works Co., The, Cleveland.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Stop, Self-Closing

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Cocks, Three-Way

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Farnan Brass Works Co., The, Cleveland.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Judson Governor Co., The, Rochester, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco.
Mueller Co., Decatur, Ill.
Murray, William H., Brooklyn, N. Y.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Coils, Pipe

(See "Bends and Coils, Pipe")

Collars, Shaft

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia.
Bartlett C. O., and Snow Co., The, Cleveland, Ohio.
Bond Foundry and Machine Co., Manheim, Pa. (Solid and split)
Chain Belt Co., Milwaukee, Wis.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Maurey Manufacturing Corp., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Rock Island Mfg. Co., Rock Island, Ill.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Collectors, Exhausters (or Blower System) for Shavings and Dust

Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Blower Corp., Detroit, Mich.
American Foundry Equipment Co., Mishawaka, Ind.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burt Manufacturing Co., The, Akron, Ohio
Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Dallet Co., The, Philadelphia, Pa.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Mott Sand Blast Mfg. Co., Inc., Chicago.
National Fan & Blower Corp., Chicago.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Ruemelin Mfg. Co., Milwaukee, Wis.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.
Sutorbilt Corp., Los Angeles, Calif.

Collets

Brown & Sharpe Mfg. Co., Providence, R. I.
Collis Co., The, Clinton, Iowa.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hannifin Manufacturing Co., Chicago, Ill.
Moseley Lathe Co., The, Elgin, Ill.
Scully-Jones & Co., Tool Division, Chicago.
Sutton Tool Co., Detroit, Mich.
Union Twist Drill Co., Athol, Mass. (Milling machines)

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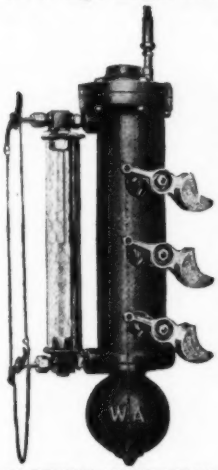
Alarm Water Columns

Wright-Austin Alarm Water Columns blow shrill whistle when water reaches low or high danger level in boiler. Made for all sizes of boilers.



TRYCOCK

The "Crescent" Trycock is absolutely non-leaking. Double life due to reversible valve and seat of special metal and easily accessible. Suitable for all Power Boilers and Water Columns.

WATER GAUGE

When a glass breaks on this Water Gauge, one pull of the chain shuts off instantly both steam and water. In replacing new glass its special "Quick Change" feature is a time and money saver. Fits all Boilers and Water Columns.

KLEERVU PROTECTOR—Appealing to those responsible for safety, our "Kleervu" Gauge Glass Protector for Water Gauges on boilers, tanks, etc., prevents injury to operators from flying pieces of exploding gauge glasses, by confining all broken glass within the Protector.

WRIGHT AUSTIN

316 West Woodbridge

DETROIT - - - - - - - - - - MICHIGAN

Columns, Water

Bordo, L. J., Co., Inc., Glenside, Pa.
Burrows, F. A., Mfg. Co., York, Pa.
Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Huyette, Paul B., Co., Inc., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Penberthy Injector Co., Detroit, Mich.
Sargent Co., Chicago, Ill.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Columns, Water, Safety

Bordo, L. J., Co., Inc., Glenside, Pa.
Huyette, Paul B., Co., Inc., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Penberthy Injector Co., Detroit, Mich.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Commutator Maintenance Equipment

Ideal Commutator Dresser Co., Sycamore, Ill.

Compounds, Anti-Freezing, for Fire Extinguishers and Buckets

Allen, W. D., Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wills Products Co., The, New York, N. Y.

Compounds, Boiler

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Oil & Grease Corp., Chicago, Ill.
American Sand Banum Co., Inc., New York, N. Y.
Arrow Boiler Compound Co., St. Louis, Mo.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Blue Seal Chemical Co., Roselle, N. J.
Crane Co., Chicago, Ill.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Duryea Products Co., New York, N. Y.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Imperial Floor Co., Inc., Rochester, N. Y.
Johns-Manville, New York.
Master Lubricants Co., Philadelphia, Pa.
Messmer Brass Co., St. Louis, Mo.
Pacific Chemical Co., Los Angeles, Calif.
Sero Specialty Co., Cleveland, Ohio.
Smooth-On Manufacturing Co., Jersey City, N. J.
United States Graphite Co., Saginaw, Mich.

Compounds, Boiler and Radiator Sealing

American Oil & Grease Corp., Chicago, Ill.
Baum's Castorine Co., Rome, N. Y.
Franklin Oil & Gas Co., The, Bedford, O.
Key Co., East St. Louis, Ill.
Smooth-On Manufacturing Co., Jersey City, N. J.
Sulflo Corporation of America, Elizabeth, N. J.

Compounds and Fluxes, Brazing

Air Reduction Sales Co., New York, N. Y.
Anti-Borax Compound Co., Fort Wayne, Ind.
Atkins, E. C., & Co., Indianapolis, Ind.
Bastian-Blessing Co., Chicago, Ill.
Cortland Welding Compound Co., Cortland, N. Y.
Covel-Hanchett Co., Big Rapids, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Dockson, C. H., Co., Detroit, Mich.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Handy & Harman, New York, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.
Swett, Frank W., & Son, Chicago, Ill.
Torchweld Equipment Co., Chicago, Ill.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Compounds, Buffing and Polishing

Black & Decker Mfg. Co., The, Towson, Md.
Dallett Co., The, Philadelphia, Pa.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Harrison & Co., Haverhill, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Matchless Metal Polish Co., The, Chicago.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Van Dorn Electric Tool Co., The, Towson, Md.

Compounds, Case Hardening and Tempering

Anti-Borax Compound Co., Fort Wayne, Ind.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Sauereisen Cements Co., Pittsburgh, Pa.
Stuart, D. A., Oil Co., Chicago, Ill.

Compounds and Lubricants, Commutator

American Oil & Grease Corp., Chicago, Ill.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Franklin Oil & Gas Co., The, Bedford, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Harris, A. W., Oil Co., Providence, R. I.
Sauereisen Cements Co., Pittsburgh, Pa.
Standard Oil Co., of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.

Compounds and Oils, Core

American Oil & Grease Corp., Chicago, Ill.
Cook's, Adam, Sons, Inc., Linden, N. J.
Fiske Brothers Refining Co., New York.
Standard Oil Co. of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.

Sulflo

THE MODERN CUTTING OIL

Sulflo Must be Viewed as a New Tool in Industry

The introduction of Sulflo marks an advance in the art of metal cutting comparable to the advent of high speed steel for cutting tools.

Sulflo No. 1. (For hand tool use) is packed in pint, quart, half gallon and gallon lithographed cans, 5 gal. pails, 15, 30 and 55 gal. drums.

Sulflo Nos. 4 & 5 (For machine tools) in 5 gal. pails, 15, 30 and 55 gal. drums.

Also manufacture pipe joint compound, soldering paste and boiler stop leak.

Liberal discounts to jobbers.

Sulflo Corporation of America
703 Spring Street, Elizabeth, N. J.

Compounds and Oils—Cutting, Drilling, Threading, Milling, Metal Drawing

American Foundry Equipment Co., Mishawaka, Ind.
American Oil & Grease Corp., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Atkins, E. C., & Co., Indianapolis, Ind.
Baum's Castorine Co., Rome, N. Y.
Beaver Pipe Tools, Inc., Warren, Ohio.
Cook's, Adam, Sons, Inc., Linden, N. J.
Curry Brothers Oil Co., Boston, Mass.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Duryea Products Co., New York, N. Y.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Hercules Chemical Co., Inc., New York.
Keystone Lubricating Co., Philadelphia.
Lubriplate Division, Fiske Brothers Refining Co., New York, N. Y.
Magie Bros., Chicago, Ill.
Master Lubricants Co., Philadelphia, Pa.
Nye Tool & Machine Works, The, Chicago.
Oster Manufacturing Co., The, Cleveland.
Ridge Tool Co., The, Elyria, Ohio.
Sero Specialty Co., Cleveland, Ohio.
Standard Oil Co. of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.
Sulflo Corporation of America, Elizabeth, N. J.
Sun Oil Co., Philadelphia, Pa.
Sutton, C. N., Chemical Co., Chicago, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
White & Bagley Co., The, Worcester, Mass.

Compounds, Elevator

American Oil & Grease Corp., Chicago, Ill.
Cook's, Adam, Sons, Inc., Linden, N. J.
Lubron Co., The, Everett, Mass.

Compounds, Grinding and Lapping

American Oil & Grease Corp., Chicago, Ill.
Carborundum Company, Niagara Falls, N. Y.
Clover Mfg. Co., Norwalk, Conn.
General Abrasive Co., Inc., Niagara Falls, N. Y.

DAYTON AIR COMPRESSORS

represent

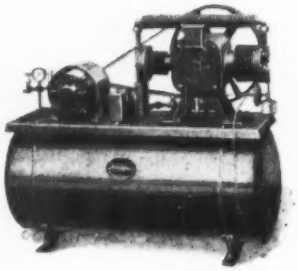
HALF A CENTURY OF PROGRESS

in

Design and Performance

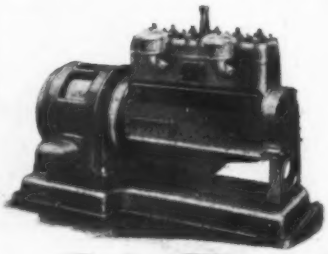
Sizes: 1 to 50 cu. ft.

MODEL G-8—Illustrated—8¼ cu. ft. Designed especially for Filling Stations and Industrial uses.



The Dayton Air Compressor Co.
Valley & Air DAYTON, OHIO

AIR POWER



Modernize your plant by installing SCHRAMM Compressors. Sizes 1 cu. ft. to 600 cu. ft.—¼ to 100 h. p. Any drive—belted or direct for any motor. Complete assemblies, compact, easy to install. Write for catalog and recommendations of SCHRAMM Engineers.
SCHRAMM, INC.—WEST CHESTER, PA.

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Harrison & Co., Haverhill, Mass. (Also lapping compounds)
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Pep Manufacturing Co., New York, N. Y.
Van Cleef Bros., Chicago, Ill.
Zip Abrasives Co., Cleveland, Ohio.

Compounds, Pipe Joint
(See "Cement or Compound, Pipe Joint")

Compounds, Rubberizing and Waterproofing

Glover, Manson, Stoughton, Mass.
Self-Vulcanizing Rubber Co., Inc., Chicago, Ill.

Compounds, Sealing

Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
McGill Manufacturing Co., Valparaiso, Ind.
Quigley Co., Inc., New York, N. Y.
Smooth-On Manufacturing Co., Jersey City, N. J.
Victor Manufacturing & Gasket Co., Chicago, Ill.

Compounds, Sewer Pipe
(See "Cement or Compound, Sewer Pipe")

Compounds, Valve Grinding

Baum's Castorine Co., Rome, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Clover Mfg. Co., Norwalk, Conn.
Fisher Governor Co., The, Marshalltown, Iowa.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Harrison & Co., Haverhill, Mass.
Lunkenheimer Co., The, Cincinnati, Ohio.
Minnesota Mining & Mfg. Co., St. Paul, Minn.

Compounds and Paints, Waterproofing

American Asphalt Paint Co., Chicago, Ill.
American Oil & Grease Corp., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Carter Paint Co., Liberty, Ind.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Curry Brothers Oil Co., Boston, Mass.
Ensign Products Co., Cleveland, Ohio.
Goodrich, B. F., Co., The, Akron, Ohio.
Horn, A. C., Co., Long Island City, N. Y.
Ideal Commutator Dresser Co., Sycamore, Ill.
Johns-Manville, New York.
Kellogg Products Co., New York, N. Y.
Koppers Company, Pittsburgh, Pa.
National Asbestos Mfg. Co., The, Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Pittsburgh Crushed Steel Co., Pittsburgh.
Protection Products Mfg. Co., Detroit, Mich.
Ruberoid Co., The, New York, N. Y.
Rust-Pruf Co., The, Chicago, Ill.
Sauereisen Cements Co., Pittsburgh, Pa.
Sherwin-Williams Co., Cleveland, Ohio.
Truscon Steel Co., Youngstown, Ohio.
Vita-Var Corp., Newark, N. J.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wills Products Co., The, New York, N. Y.

Compounds, Water Softening
(See "Compounds, Boiler")

Compounds or Flux, Welding
(See "Flux, Foundry and Welding")

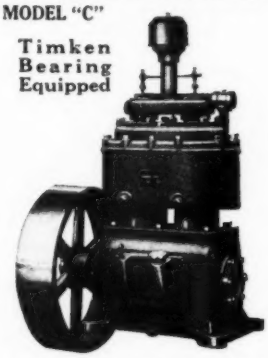
Compressors, Air

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Air Compressor Corp., Brooklyn.
American Chain Co., Inc., New York, N. Y.
American Steam Pump Co., Battle Creek, Mich.
Brunner Manufacturing Co., Utica, N. Y.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dayton Air Compressor Co., The, Dayton.
Electric Sprayit Co., The, Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
General Electric Co., Schenectady, N. Y.
Hobart Bros. Co., Troy, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.

CURTIS AIR COMPRESSORS

MODEL "C"

Timken Bearing Equipped



CARBON-FREE VALVES

3 to 50 H. P. Water-cooled. Equipped with Curtis centro-ring oiling system. Also complete motor or engine driven outfits, belt or direct drive.

CURTIS PNEUMATIC MACHY. CO.
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CURTIS

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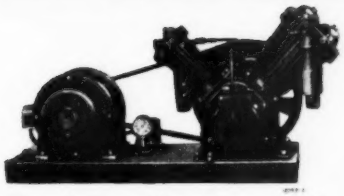
Kellogg Manufacturing Co., Rochester, N. Y.
Meier Electric & Machine Co., The, Indianapolis, Ind.
Miller Improved Gas Engine Co., Springfield, Ohio.
Mott Sand Blast Mfg. Co., Inc., Chicago.
National Transit Pump & Machine Co., Oil City, Pa.
O. K. Clutch & Machinery Co., Columbia, Pa.
Paasche Airbrush Co., Chicago, Ill.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Quincy Compressor Co., Quincy, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Saylor-Beall Manufacturing Co., Detroit.
Schramm, Inc., West Chester, Pa.
United States Air Compressor Co., Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yeomans Brothers Co., Chicago, Ill.

Compressors, Air, for Garages

American Air Compressor Corp., Brooklyn.
American Steam Pump Co., Battle Creek, Mich.
Baker-Hansen Mfg. Co., Alameda, Calif.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Champion Pneumatic Machinery Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dayton Air Compressor Co., The, Dayton.
DeVilbiss Co., The, Toledo, Ohio.
Gardner-Denver Co., Quincy, Ill.
Hartford Machine Screw Co., Hartford Conn.
Hobart Bros. Co., Troy, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Kellogg Manufacturing Co., Rochester, N. Y.
Machine Shop Equipment Co., Grove City, Pa.
Manley Manufacturing Div. of American Chain Co., Inc., York, Pa.
Paasche Airbrush Co., Chicago, Ill.

COMPRESSORS



Two types of units, one air-cooled, the other water-cooled, to fill every need.

AIR-COOLED UNITS

1/4 to 75 horsepower.
1.2 to 445 cu. ft. per min.
Pressures 5 to 1000 lbs.
Vacuum pumps.

WATER-COOLED UNITS

10 to 125 horsepower
5 to 150 lbs.
55 to 1990 cu. ft. per min.

Ingersoll-Rand
11 Broadway, New York City

Quincy Compressor Co., Quincy, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Schramm, Inc., West Chester, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Spray Engineering Co., Somerville, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.

Compressors, Air, Hydraulic

American Air Compressor Corp., Brooklyn.
Binks Manufacturing Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Ingersoll-Rand Co., New York, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Compressors, Air, Portable

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Air Compressor Corp., Brooklyn.
American Steam Pump Co., Battle Creek, Mich.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Champion Pneumatic Machinery Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Dayton Air Compressor Co., The, Dayton.
DeVilbiss Co., The, Toledo, Ohio.
Dunmore Co., The, Racine, Wis.
Gardner-Denver Co., Quincy, Ill.
General Electric Co., Schenectady, N. Y.
Hartford Machine Screw Co., Hartford, Conn.
Hobart Bros. Co., Troy, Ohio.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kellogg Manufacturing Co., Rochester, N. Y.
Manley Manufacturing Div. of American Chain Co., Inc., York, Pa.
Metal Specialties Mfg. Co., Chicago, Ill.
Milburn, Alexander, Co., The, Baltimore.
Mott Sand Blast Mfg. Co., Inc., Chicago.
O. K. Clutch & Machinery Co., Columbia, Pa.
Paasche Airbrush Co., Chicago, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Schramm, Inc., West Chester, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yeomans Brothers Co., Chicago, Ill.

Compressors, Ammonia

Brunswick-Kroeschell Co., New Brunswick, N. J.
Carbondale Machine Corp., Harrison, N. J.
Ingersoll-Rand Co., New York, N. Y.
Yeomans Brothers Co., Chicago, Ill.

Compressors, Gas

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Air Compressor Corp., Brooklyn.
Chicago Pneumatic Tool Co., New York.
Dayton Air Compressor Co., The, Dayton.
De Laval Steam Turbine Co., Trenton, N. J.
Gardner-Denver Co., Quincy, Ill.
General Electric Co., Schenectady, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Miller Improved Gas Engine Co., Springfield, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Worthington Pump & Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Condensation Outfits

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Decatur Pump Co., Decatur, Ill.
Economy Pumping Machinery Co., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Harris, Arthur, & Co., Chicago, Ill.
Myers, F. E., & Bro. Co., Ashland, Ohio.
Rumsey Pump Corp., Seneca Falls, N. Y.
Worthington Pump & Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Condensers, Jet, Surface and Barometric

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bartlett Hayward Co., The Baltimore, Md.
Chicago Pneumatic Tool Co., New York.
Filer & Stowell Co., The, Milwaukee, Wis.
Ingersoll-Rand Co., New York, N. Y.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump & Machinery Corp., Harrison, N. J.

Conduit, Underground Steam Line

Fretz-Moon Tube Co., Inc., East Butler, Pa.
Steel & Tubes, Inc., (Subsidiary of Republic Steel Corp.), Cleveland, Ohio.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Connections, Gas Meter

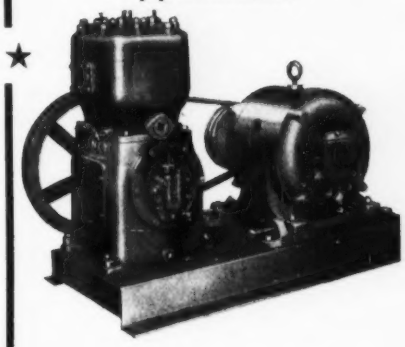
Crane Co., Chicago, Ill.
Mueller Co., Decatur, Ill.

Connections, Pipe Line

Barco Manufacturing Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
National Lead Co., New York, N. Y.
Sacramento Pipe Works, Sacramento, Cal.
Taylor Forge & Pipe Works, Chicago, Ill.

Install a Quincy

Air-and-Water-Cooled Compressors for a Wide Range of Industrial Applications



To make your selling job easier and your customer's satisfaction more complete, Quincy Compressors include these features:

1. Timken Tapered Roller Bearings
2. Semi-Steel Pistons, automotive type
3. Drop-Forged Crankshaft, perfectly balanced
4. Non-Breakable Steel Valves, ring plate design
5. Perfect Circle Piston Rings, improved type
6. Lynite Connecting Rods, require less power
7. Full Pressure Lubrication, by gear pump
8. Improved Cooling, increases Quincy's efficiency
9. Nickel Chrome Castings, wear longer
10. Totally Enclosed Crankcase, it's dust-proof

Submit specifications for prices and discounts. Factory trained men available for engineering service. QUINCY COMPRESSOR CO., Quincy, Ill. Branches: 30 Church St., New York and 205 W. Wacker Drive, Chicago.

QUINCY Compressors

Connections, Pipe, Offset Reducing

Crane Co., Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.

Connections, Union

(See "Unions")

Connections, Water Meter

Crane Co., Chicago, Ill.
Hersey Manufacturing Co., Boston, Mass.
Mueller Co., Decatur, Ill.

Connectors, Cable, Detachable

Dallet Co., The, Philadelphia, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill.

Connectors, Wire

Ideal Commutator Dresser Co., Sycamore, Ill.

Control, Oil, Constant Level

Lunkenheimer Co., The, Cincinnati, Ohio.

Controllers, Electric

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
Furnas Electric Co., West Allis, Wis.
General Electric Co., Schenectady, N. Y.
Huhn Manufacturing Co., Bronx, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Philadelphia Gear Works, Philadelphia.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Uehling Instrument Co., Paterson, N. J.

Controllers, Fan Engine

(See "Regulators, Controllers or Governors—Fan Engine")

Controllers, Power Pump

(See "Governors or Regulators, Pump")

Controllers, Water Level

(See "Regulators, Water Level")

Controls, Draft or Combustion

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Leeds & Northrup Co., Philadelphia, Pa.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.

Conveyors, Apron

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cambridge Wire Cloth Co., Cambridge, Md.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., Columbus, O.
Link-Belt Co., Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mathews Conveyor Co., Ellwood City, Pa.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Michigan Wire Cloth Co., Detroit, Mich.
New York Belting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Conveyors, Belt

Acme Steel Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cambridge Wire Cloth Co., Cambridge, Md.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Filer & Stowell Co., The, Milwaukee.
Gandy Belting Co., Grand Rapids, Mich.
Godfrey Conveyor Co., Elkhart, Ind.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mathews Conveyor Co., Ellwood City, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Miller Machine Works, Springs, Pa.
Mountville Mfg. Co., Mountville, Pa.
New York Beting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Belting Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Conveyors, Bucket

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Filer & Stowell Co., The, Milwaukee, Wis.
Godfrey Conveyor Co., Elkhart, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mey Chain Belt Co., Buffalo, N. Y.
Miller Machine Works, Springs, Pa.
New York Belting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Manufacturing Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors—Coal, Gravel and Sand

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Godfrey Conveyor Co., Elkhart, Ind.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Huron Industries, Inc., Alpena, Mich.
Industrial Brownhoist Corp., Cleveland.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mey Chain Belt Co., Buffalo, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Conveyors, Gravity

Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Corley Manufacturing Co., Chattanooga, Tenn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Lumber and Sawmill

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Corley Manufacturing Co., Chattanooga, Tenn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Memphis Machine Works, Memphis, Tenn.
Mey Chain Belt Co., Buffalo, N. Y.
Miller Machine Works, Springs, Pa.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Merchandise

Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Imperial Belting Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Palmer-Bee Co., Detroit, Mich.
Starline, Inc., Harvard, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Overhead

American MonoRail Co., Cleveland, Ohio.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Starline, Inc., Harvard, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Products, Inc., New Castle, Ind.
Wright Mfg. Div. of American Chain Co., York, Pa.

Conveyors, Portable, for Loading Cars and Stacking

Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.

Cardwell Machine Co., The, Richmond, Va.
Diamond Iron Works, Inc., Minneapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Palmer-Bee Co., Detroit, Mich.
Republic Rubber Co., The, Cincinnati, O.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Screw and Spiral

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Palmer-Bee Co., Detroit, Mich.
Ruemelin Mfg. Co., Milwaukee, Wis.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Steel Belt

Acme Steel Co., Chicago, Ill.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
R. S. Products Corp., Philadelphia, Pa.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Steel Pan

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Filer & Stowell Co., The, Milwaukee, Wis.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
R. S. Products Corp., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

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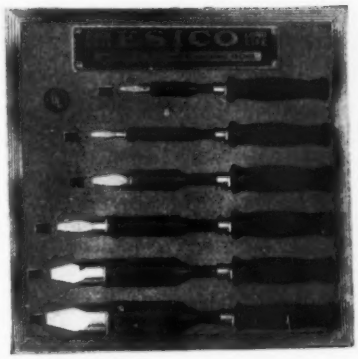

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No. 56	65 Watts	List	$ 5.00
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No. 121	120 Watts	List	7.75
No. 201	200 Watts	List	8.75
No. 350	350 Watts	List	10.25
No. 500	500 Watts	List	12.25

OUR many years of experience in producing soldering irons for radio and industrial companies have resulted in the perfected ESICO, an iron which represents the ultimate in heating efficiency and low maintenance cost.

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Conveyors, Wire Cable

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Cable Co., Inc., Wilkes-Barre, Pa.
American Steel & Wire Co., Chicago, Ill.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Coolers and Filters, Water

American Air Compressor Corp., Brooklyn.
American Filter Co., Milwaukee, Wis.
Clow, James B., & Sons, Chicago, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Scaife, W. B., & Sons Co., Oakmont, Pa.
Worthington-Gamon Meter Co., Harrison, N. J.

Copper Rods, Bars and Sheets

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Anaconda Wire & Cable Co., New York.
Chase Brass & Copper Co., Waterbury, Conn.
Federated Metals Corp., New York, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
National Copper & Smelting Co., Cleveland.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc., Rome Division, Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

Coppers and Irons, Soldering

Barrett, Wm. L., Co., Bristol, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.

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Pipe Size

Chase Brass & Copper Co., Waterbury, Conn.
Dunton, M. W., Co., The, Providence, R. I.
Electric Soldering Iron Co., Inc., New York.
Everhot Mfg. Co., Maywood, Ill.
Hexagon Electric Appliance Corp., Roselle, N. J.
Justrite Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Merchant & Evans Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Torit Manufacturing Co., St. Paul, Minn.
Turner Brass Works, The, Sycamore, Ill.
Vulcan Electric Co., Lynn, Mass.

Coppers and Irons, Soldering
(Electric Heat)

American Electrical Heater Co., Detroit, Mich.
Drake Electric Works, Chicago, Ill.
Hexagon Electric Appliance Co., Roselle Park, N. J.
Northern Electric Co., Chicago, Ill.
Stanley Works, The, New Britain, Conn.
Vulcan Electric Co., Lynn, Mass.

Coppers and Irons, Soldering
(Gas Heat)

Everhot Mfg. Co., Maywood, Ill.
Justrite Manufacturing Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.

Coppers, Soldering

Arcade Mfg. Co., Freeport, Ill.
Barrett, Wm. L., Co., Bristol, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Conklin, T. E., Brass & Copper Co., Inc., The, New York, N. Y.
Dunton, M. W., Co., The, Providence, R. I.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Peck, Stow & Wilcox Co., Southington, Conn.
Revere Copper & Brass, Inc., Rome Division, Rome, N. Y.
Turner Brass Works, The, Sycamore, Ill.

Coppers, Soldering, and Blow Torch Combined

Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Justrite Manufacturing Co., Chicago, Ill.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.

Cord, Wick and Yarn—Asbestos

Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Rhopac Products Corp., Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc, Manheim, Pa.

Cord, Electric Tool

American Steel & Wire Co., Chicago, Ill.
Euclid Rubber Co., Cleveland, Ohio.
General Electric Co., Schenectady, N. Y.
Roebling's, John A., Sons Co., Trenton, N. J.
Royal Electric Co., Inc., Avon, Mass.
Simplex Wire & Cable Co., Boston, Mass.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.

Cordage, Braided

Massasoit Mfg. Co., Fall River, Mass.
Samson Cordage Works, Boston, Mass.
Silver Lake Co., Chattahoochee, Ga.

Cores and Cases, Flexible Shaft

Stow Mfg. Co., Inc., Binghamton, N. Y.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Cotter Pins and Spring Keys

American Chain Co., Inc., Bridgeport, Conn.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Eaton Manufacturing Co., Massillon, Ohio.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hobbs Manufacturing Co., Worcester, Mass.
Lamson & Sessions Co., The, Cleveland, O.
Leard, William, Co., Inc., The, New Brighton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Rockford Screw Products Co., Rockford, Ill.
Smith, F. P., & Co., Sharon Hill, Pa.
Stevens, Walden, Inc., Worcester, Mass.
United Screw & Bolt Corp., Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Western Wire Products Co., St. Louis, Mo.

Cotton, Calking, Spun

Massasoit Mfg. Co., Fall River, Mass.

Counters, Revolution

Durant Mfg. Co., Milwaukee, Wis.
Hart, R. E., Mfg. Co., Battle Creek, Mich.
Veeder-Root, Inc., Hartford, Conn.

Counterbores

Alvord-Polk Tool Co., Millersburg, Pa.
Barnes Drill Co., Rockford, Ill.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Kelly Reamer Co., Cleveland, Ohio.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Tool Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Countershafts

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Pulley & Shafting Co., Chicago.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cutter Machine Co., St. Louis, Mo.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Gisholt Machine Co., Madison, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Countersinks

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Atlas Press Co., Kalamazoo, Mich.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Scully-Jones & Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass. (Auto brake lining countersinks)
Whitman and Barnes, Inc., Detroit, Mich.

Counting Machines
(See "Machines, Counting)

Couplings, Casing

Crane Co., Chicago, Ill.
Harrisburg Steel Corp., Harrisburg, Pa.
Mark, Clayton, & Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Walworth Co., New York, N. Y.

Couplings, Copper Tube

Chase Brass & Copper Co., Waterbury, Conn.
Essex Brass Corp., Detroit, Mich.
Farnan Brass Works Co., The, Cleveland.
Imperial Brass Manufacturing Co., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O.
Prier Brass Mfg. Co., Kansas City, Mo.

Couplings, for Flexible Metal Hose

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Chicago Tubing & Braiding Co., Maywood, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Goodall Rubber Co., Philadelphia, Pa.
Hartford Machine Screw Co., Hartford, Conn.
Hunt, C. B., & Son, Salem, Ohio.
Meyer Coupling Co., Inc., Los Angeles.
Mulconroy Company, Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Republic Rubber Co., The, Cincinnati, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Simplex Spray Equipment Co., Chicago, Ill.

Couplings, Gas and Oil Line

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Essex Brass Corp., Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Harrisburg Steel Corp., Harrisburg, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
Meyer Coupling Co., Inc., Los Angeles.
Mueller Brass Co., Port Huron, Mich.
Parker Appliance Co., The, Cleveland, O.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

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The ONLY quick acting coupling that also controls the air.

Makers of QAW. operating valve for air and water

C. B. HUNT & SON

Salem, Ohio

Couplings, Gasoline Pipe

(See "Fittings and Couplings, Gasoline Pipe")

Couplings, Hose, Air and Gas

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Quick Coupling Co., San Francisco, Calif.
Bastian-Blessing Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Pneumatic Tool Co., New York.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods, Division of The B. F. Goodrich Co., Akron, Ohio
Dixon Valve & Coupling Co., Philadelphia, Pa.
Edwards, H. D., & Co., Detroit, Mich.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Farnan Brass Works Co., The, Cleveland.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Home Rubber Co., Trenton, N. J.
Hunt, C. B., & Son, Salem, Ohio.
Imperial Brass Manufacturing Co., Chicago.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kelly Machinery Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Meyer Coupling Co., Inc., Los Angeles.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
Mulconroy Company, Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
Rauch Manufacturing Co., The, Galena, Kan.
Republic Rubber Co., The, Youngstown, O.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Sight Feed Generator Co., Richmond, Ind.
Simplex Spray Equipment Co., Chicago, Ill.
Sterling Products Co., Detroit, Mich.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Torchweld Equipment Co., Chicago, Ill.
Walworth Co., New York, N. Y.

Couplings, Hose, Rotary

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Dixon Valve & Coupling Co., Philadelphia, Pa.

Couplings, Hose, Steam

Allen, W. D., Mfg. Co., Chicago, Ill.
American Quick Coupling Co., San Francisco, Calif.
Atlas Brass Foundry, Los Angeles, Calif.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Farnan Brass Works Co., The, Cleveland.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Haydenville Co., The, Haydenville, Mass.
Home Rubber Co., Trenton, N. J.
Kelly Machinery Co., Chicago, Ill.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Meyer Coupling Co., Inc., Los Angeles.
Mulconroy Company, Philadelphia, Pa.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Rauch Manufacturing Co., The, Galena, Kan.
Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Thermoid Rubber Co., Trenton, N. J.
Walworth Co., New York, N. Y.

Couplings, Hose, Water

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
American Quick Coupling Co., San Francisco, Calif.
Asch & Co., Inc., New York, N. Y.
Atlas Brass Foundry, Los Angeles, Calif.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.

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HOSE COUPLINGS

for **DEPENDABILITY**

A Complete Line to meet all user requirements under all conditions. A line of couplings and clamps for steam, air or liquid hose coupling needs.

The new "G. J. Boss", regular "Boss", "Air King" and "Dixon" products when sold by distributors mean user satisfaction and a guarantee of profit to the distributor on hose and coupling sales which stand up in service.

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IF IT'S A "DIXON" PRODUCT IT'S DEPENDABLE

DIXON

VALVE & COUPLING CO.

PHILADELPHIA

Los Angeles Birmingham Houston

Farnan Brass Works Co., The, Cleveland, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Haydenville Co., The, Haydenville, Mass.
Home Rubber Co., Trenton, N. J.
Hunt, C. B., & Son, Salem, Ohio.
Independent Pneumatic Tool Co., Chicago.
Jiffy Fire Hose Rack Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Keystone Brass & Rubber Co., Philadelphia.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Meyer Coupling Co., Inc., Los Angeles.
Mulconroy Company, Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.

(Continued on page 118)

Joy Automatic Air Hose Coupler

A SIMPLE TWIST OF THE WRIST DOES THE TRICK

H. D. EDWARDS & CO. - DETROIT, MICH.

KNOX
Valves - Couplings - Nipples - Clamps - Menders
The Ultimate in Couplings and Nipples for Air and Steam Hose.

Female Coupling Nipple
The Clamp design prevents the Hose from bending sharply over the end of the Stem, a feature exclusive with KNOX and of paramount importance to the life of any Hose.
CATALOGUE ON REQUEST.
Knox Manufacturing Co.
819 Cherry St., Philadelphia

Couplings, Hose Water

(Continued from page 117)

Safety Fire Extinguisher Co., The, New York, N. Y.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Walworth Co., New York, N. Y.

Couplings, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Atlas Brass Foundry, Los Angeles, Calif.
Belfield, H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Brass Co., Port Huron, Mich.
New York Brass Foundry Co., New York.
Nugent, Wm. W., & Co., Chicago, Ill.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Couplings, Pipe, Cast Iron

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kuhn Bros. Co., Dayton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Swett, A. L., Iron Works, Medina, N. Y.
Walworth Co., New York, N. Y.

Couplings, Pipe, Flexible

Barco Manufacturing Co., Chicago, Ill.
Chicago Tubing & Braiding Co., Maywood, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Meyer Coupling Co., Inc., Los Angeles.
Moran Flexible Steam Joint Co., Louisville, Ky.
Taylor Forge & Pipe Works, Chicago, Ill.

Couplings, Pipe, Malleable Iron

Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.
Wheeling Machine Products Co., Wheeling, W. Va.

Couplings, Pipe, Reducing

Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Couplings, Pipe Repair

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Sacramento Pipe Works, Sacramento, Cal.

Couplings, Pipe, Wrought Iron and Steel

Bethlehem Steel Co., Bethlehem, Pa.
Byers, A. M., Co., Pittsburgh, Pa.
Central Tube Co., Pittsburgh, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Harrisburg Steel Corp., Harrisburg, Pa.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kleinman, Russell F., Philadelphia, Pa.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Reading Iron Co., Philadelphia, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Wheeling Machine Products Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

QUICK-ACTING COUPLERS

Guaranteed Airtight
For application at service points. Interchange air-operated equipment as easily as plugging in electric light socket. A short twist uncouples, automatically shutting off air.
Schrader
REG. U. S. PAT. OFF.
A. SCHRADER'S SON, BROOKLYN, N. Y.
Division of Scovill Manufacturing Company Incorporated

Couplings, Pump Rod

Chicago Rawhide Mfg. Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fee & Mason Mfg. Co., Inc., New York.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Mark, Clayton, & Co., Chicago, Ill.
Nunn Brass Works, Rochester, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Walworth Co., New York, N. Y.
Wheeling Machine Products Co., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Couplings, Range Boiler

(See "Fittings, Range Boiler")

Couplings, Rod, Malleable

Devlin, Thos., Mfg. Co., Burlington, N. J.
Fee & Mason Mfg. Co., Inc., New York.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.
Mark, Clayton, & Co., Chicago, Ill.
Walworth Co., New York, N. Y.

Couplings, Sewer Rod

Nunn Brass Works, Rochester, N. Y.

Couplings, Shaft, Compression

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Fitz Water Wheel Co., Hanover, Pa.
Foote Bros. Gear & Machine Co., Chicago.

HENDERSHOT COUPLINGS—
America's simplest and strongest Compression Coupling
Two Complete Cases—Double Strength.
Self Centering—Insuring Proper Alignment.
Internal Jaws or Clutches — Eliminating Strain on Connecting Bolts.
Greater Compression Area — Increasing Power Factor.
A stock that sells quickly and has a satisfaction guarantee back of it.
Write for Price List and Dealers' Discounts.
Sprout, Waldron & Co., Muncy, Pa.

Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Cut-off and Friction Clutch

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Brown Engineering Co., Reading, Pa.
Chicago Pulley & Shafting Co., Chicago.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Conway Clutch Co., The, Cincinnati, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Kinney Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
List, E. J., Mfg. Co., Havana, Ill.
Medart Co., St. Louis, Mo.
Moore & White Co., The, Philadelphia, Pa.
Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Engineering & Mfg. Co., Chicago.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Flange or Plate

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Brown Engineering Co., Reading, Pa.
Canton Foundry & Machine Co., The, Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
De Laval Steam Turbine Co., Trenton, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Foote Gear Works, Inc., Cicero, Ill.
General Electric Co., Schenectady, N. Y.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Huron Industries, Inc., Alpena, Mich.
Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
List, E. J., Mfg. Co., Havana, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
Pyott Foundry & Machine Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Smith & Serrell, Newark, N. J.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Tranter Mfg. Co., Pittsburgh, Pa.
Waldron, John, Corp., New Brunswick, N. J.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Flexible

Ajax Flexible Coupling Co., Westfield, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Baldor Electric Co., St. Louis, Mo.
Bartlett Hayward Co., The, Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Brown Engineering Co., Reading, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Die Casting Mfg. Co., Chicago.
Chicago Pulley & Shafting Co., Chicago.
Chicago Rawhide Mfg. Co., The, Chicago.
Congress Tool & Die Co., Detroit, Mich.
Cook, H. N., Belting Co., San Francisco.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Chain and Mfg. Co., Indianapolis, Ind.
Dodge Manufacturing Corp., Mishawaka, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Falk Corp., The, Milwaukee, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Buffalo, N.Y.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Frederick Iron & Steel Co., Frederick, Md.
General Electric Co., Schenectady, N. Y.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Illinois Gear & Machine Co., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.

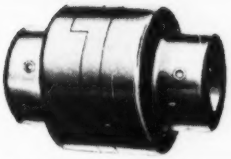
(Continued on page 120)

LINK-BELT
FLEXIBLE COUPLINGS

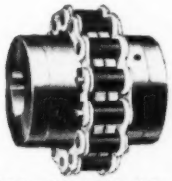
Made in three types to meet varying requirements of industrial service.

Progressive mill supply houses interested in volume sales, profits and satisfied customers should investigate the Link-Belt line.

Send for catalog No. 1500.



Type "A" Coupling is made on the double slider principle. The floating intermediate member is made of electric steel, and engages with faces of both cast iron flanges, permitting a sliding movement. The couplings are strong, and intended primarily for low speeds and heavy torque.



Type "RC" Coupling consists of two cut teeth sprocket wheels (or coupling halves) and a piece of finished steel roller chain to connect them, all working surfaces being machined to close tolerances. This coupling has great flexibility of design for meeting special conditions.

Type "B" Coupling is constructed of three members, consisting of two cast iron flanges with lugs cast integral, and a flexible intermediate engaging member. The couplings are accurately machined and balanced. Allows for reasonable end float of the motor, and prevents excessive bearing pressure or bending that would otherwise occur with the least deviation from perfect alignment of the bearings of the driving and driven elements.

LINK-BELT COMPANY, 2416 W. 18th St., **CHICAGO**

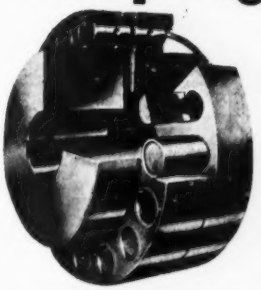
L-R EVERLASTING
FLEXIBLE COUPLINGS

(U. S. and Foreign Patents Pending)

You can **sell** this fine line of L-R **Everlasting** FLEXIBLE COUPLINGS and make a good profit doing it. Sizes for every coupling job—from 1/4" to 10" bores. **DISTRIBUTORS:** L-R Couplings offer you profitable sales opportunities. Write for distributors' plan, samples, prices and literature.

LOVEJOY TOOL WORKS
4955 West Lake Street CHICAGO, ILL.

FRANCKE
Flexible Couplings



and genuine FRANCKE Replacement Parts

For over 20 years the best known flexible coupling. New improvements. New lower prices. Large stock—all sizes and types. For information and price lists—write to

JOHN WALDRON CORP.
New Brunswick - New Jersey
New York Pittsburgh Chicago Portland, Ore.

Make EHRET'S

your Source of Supply for Pipe and Boiler Insulation

EHRET'S 85% MAGNESIA

• Distributors sell Ehret's 85% Magnesia—for all boiler coverings, high pressure steam, and hot water lines, where efficient insulation, for long durable service, is desired. It is absolutely fireproof, very light in weight, unaffected by moisture, and will not corrode metal surfaces.

Ehret's 85% Magnesia is prescribed in even 3-ft. sections with canvas jacket and bands in Pipe Covering Form—in 6"x36" Blocks for flat or curved surface work—and in 60-lb. bags as a plastic cement.

• EHRET also furnishes low pressure insulating materials such as Hair Felt—Air Cell—Wool Felt—Cork, a variety of Cements, and Heat Seal Wool for Home Insulation. Engineering literature on all products will be furnished on request to Distributors—write for it today.

EHRET

MAGNESIA MANUFACTURING CO.

Executive offices and factories VALLEY FORGE, PA.

Branch Offices and Distributors in all Principal Cities

CHICAGO

FLEXIBLE COUPLINGS

Manufactured and carried in stock for immediate shipment. Catalogue furnished on request.

CHICAGO DIE CASTING MFG. CO.

2510 W. Monroe St. CHICAGO, ILL.

Couplings, Shaft, Flexible

(Continued from page 119)

Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
Lovejoy Tool Works, Chicago, Ill.
Medart Co., St. Louis, Mo.
Meriam Co., The, Cleveland, Ohio.
Morse Chain Co., Ithaca, N. Y.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith & Serrell, Newark, N. J.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Waldron, John, Corp., New Brunswick, N. J.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Chain & Mfg. Co., The, Hartford, Conn.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Jaw Clutch

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
Dodge Mfg. Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee.
Fitz Water Wheel Co., Hanover, Pa.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Universal Joint

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Belting Co., Chicago, Ill.
Chicago Die Casting Mfg. Co., Chicago.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Philadelphia Gear Works, Philadelphia.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Smith Power Transmission Co., The, Cleveland, Ohio.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Soldering

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Chicago Tubing & Braiding Co., Maywood, Ill.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Meyer Coupling Co., Inc., Los Angeles.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
Walworth Co., New York, N. Y.

Couplings, Sprinkler

American Quick Coupling Co., San Francisco, Calif.

Couplings, Tank, Welding

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Chicago Tubing & Braiding Co., Maywood, Ill.
Imperial Brass Mfg. Co., Chicago.
Meyer Coupling Co., Inc., Los Angeles.
Torchweld Equipment Co., Chicago, Ill.

Covering for Brine, Ammonia and All Cold Pipe

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Armstrong Cork Products Co., Lancaster, Pa.
Carey, Philip, Co., The, Lockland, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York.
Owens-Illinois Glass Co., Toledo, Ohio.
Ruberoid Co., The, New York, N. Y.
Rust-Pruf Co., The, Chicago, Ill.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.

Covering, Pipe and Boiler

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Alfol Insulation Co., Inc., New York, N. Y.

Carey, Philip, Co., The, Lockland, Ohio.
Eagle-Picher Lead Co., The, Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Owens-Illinois Glass Co., Toledo, Ohio.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.
Wills Products Co., The, New York, N. Y.

Covering, Pulley

Alexander Brothers, Inc., Philadelphia.
Allen, W. D., Mfg. Co., Chicago, Ill.
Buffalo Weaving & Belting Co., Buffalo.
Burrell Belting Co., Chicago, Ill.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cook, H. N., Belting Co., San Francisco.
Dallett Co., The, Philadelphia, Pa.
Detroit Oak Belting Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gripwell Mfg. Co., New York, N. Y.
Hawes Manufacturing Co., Inc., Jersey City, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Belting Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Menasha Wood Split Pulley Co., Menasha, Wis.
New York Belting & Packing Co., Passaic, N. J.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
Republic Rubber Co., The, Youngstown, O.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Covering, Range Boiler

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York.
Keasbey & Mattison Co., Ambler, Pa.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Owens-Illinois Glass Co., Toledo, Ohio.
Ruberoid Co., New York, N. Y.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Covering or Casing, Steam Pipe

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Johns-Manville, New York.
Keasbey & Mattison Co., Ambler, Pa.
Keating, E. F., Co., New York, N. Y.
Michigan Pipe Co., Bay City, Mich.
National Asbestos Mfg. Co., The, Jersey City, N. J.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Owens-Illinois Glass Co., Toledo, Ohio.
Ruberoid Co., New York, N. Y.
Spang, Chalfant & Co., Inc., Pittsburgh.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.
U. S. Mineral Wool Co., New York, N. Y.

Covers, Canvas

Gandy Belting Co., Grand Rapids, Mich.
Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.

Covers and Frames, Manhole and Handhole, Boiler and Tank

Bethlehem Steel Co., Bethlehem, Pa.
Carey, Philip, Co., The, Lockland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Edwards Manufacturing Co., Inc., Cincinnati, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Fisher Governor Co., The, Marshalltown, Iowa.
Frederick Iron & Steel Co., The, Frederick, Md.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Key Co., East St. Louis, Ill.
Littleford Bros., Cincinnati, Ohio.
Mountville Mfg. Co., Mountville, Pa.
Noyes, B. B., Co., Greenfield, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Swett, A. L., Iron Works, Medina, N. Y.
Union Fibre Sales Co., Winona, Minn.

Crabs, Hoisting

American Hoist & Derrick Co., St. Paul.
Beebe Bros., Seattle, Wash.
Dake Engine Co., Grand Haven, Mich.
Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., Columbus, O.
Loane Engineering Co., Baltimore, Md.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Round, David, and Son, Cleveland, Ohio.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.

Cranes, Air Powered

Curtis Pneumatic Machinery Co., St. Louis, Mo.

Cranes, Jib

American Hoist & Derrick Co., St. Paul, Minn.
American MonoRail Co., Cleveland, Ohio.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Detroit Hoist & Machine Co., Detroit.
Euclid-Armington Corp., Euclid, Ohio.
Harrington Co., The, Philadelphia, Pa.
Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Industrial Brownhoist Corp., Cleveland, O.
Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Meyers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Speidel Elevator Corp., Reading, Pa.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Cranes, Portable

American Hoist & Derrick Co., St. Paul.
Canedy Otto Mfg. Co., Chicago Heights, Ill.
Canton Foundry & Machine Co., The, Cleveland, Ohio.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Elwell-Parker Electric Co., The, Cleveland, Ohio. (Electric)
Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Lewis-Shepard Co., Boston, Mass.
Manley Manufacturing Division of American Chain Co., Inc., York, Pa.
Marion Steam Shovel Co., Marion, Ohio.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Round, David, and Son, Cleveland, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Cranes, Traveling, Hand and Electric Power

American Hoist & Derrick Co., St. Paul.
American MonoRail Co., Cleveland, Ohio.
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Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
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Round, David and Son, Cleveland, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane & Hoist Corp., Montour Falls, N. Y.
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Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Crayons, Industrial

Dixon, Joseph, Crucible Co., Jersey City, N. J.
Handlan-Buck Mfg. Co., St. Louis, Mo.

Crosses, Pipe

(See "Pittings, Pipe")

Crow Bars

(See "Bars—Crow, Pinch and Pry")

Crowners—Screw, Bolt and Nut Heads

Rawlplug Co., Inc., The, New York, N. Y.

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Dixon, Joseph, Crucible Co., Jersey City, N. J.
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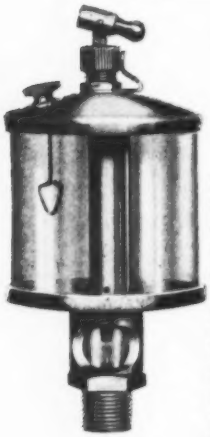

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Diamond Iron Works, Inc., Minneapolis.
Frederick Iron & Steel Co., The, Frederick, Md.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.

Cups, Force

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Quaker City Rubber Co., Philadelphia, Pa.
Reliance Rubber Corp., Keyport, N. J.

Cups, Grease, Automatic

Adams Grease Gun Corp., New York, N. Y.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Cook's, Adam, Sons, Inc., Linden, N. J.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Chas. W., Co., Muskegon, Mich.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Scovill Mfg. Co., Waterbury, Conn.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati.

Cups, Grease, Compression

Adams Grease Gun Corp., New York, N. Y.
American Injector Co., Detroit, Mich.
American Stamping Co., Battle Creek, Mich.
Chain Belt Co., Milwaukee, Wis.
Cook's, Adam, Sons, Inc., Linden, N. J.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Dodge Manufacturing Corp., Mishawaka, Ind.
Essex Brass Corp., Detroit, Mich.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farnan Brass Works Co., The, Cleveland, O.
Franklin Oil & Gas Co., The, Bedford, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Jeffrey Manufacturing Co., Columbus, O.
Keystone Lubricating Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merchant & Evans Co., Philadelphia, Pa.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Swift Lubricator Co., Elmira, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cups, Leather

(See "Leathers, Cup and Flange")

Cups, Oil, Force Feed

Adams Grease Gun Corp., New York, N. Y.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Gits Bros. Mfg. Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Victor Lubricator Co., Chicago, Ill.

Cups, Oil, Gas Engine

(See "Lubricators and Oil Cups, Gas Engine")

Cups, Oil, Glass Body

Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Boston Gear Works, Inc., North Quincy, Mass.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Creamer Glass Works, Millville, N. J.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Franklin Oil & Gas Co., The, Bedford, O.
General Brass Co., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cups, Oil, Loose Pulley

Adams Grease Gun Corp., New York, N. Y.
American Injector Co., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Justrite Manufacturing Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Victor Lubricator Co., Chicago, Ill.

Cups, Oil, Plain Brass and Steel

Adams Grease Gun Corp., New York, N. Y.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
American Stamping Co., Battle Creek, Mich.
Bay State Stamping Co., Worcester, Mass.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hunter Pressed Steel Co., Lansdale, Pa.
Justrite Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cups, Oil, Slide

American Injector Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.
Victor Lubricator Co., Chicago, Ill.

Cups, Priming

American Injector Co., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Brass Co., Detroit, Mich.
Hunter Pressed Steel Co., Lansdale, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Penberthy Injector Co., Detroit, Mich.
Williams, D. T., Valve Co., The, Cincinnati.

Cups, Valve

Chicago Rawhide Mfg. Co., The, Chicago.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, O. (Valve, stem and guide)
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Parker Cup & Specialty Works, Parkers Landing, Pa. (Composition, canvas and leather)
Republic Rubber Co., The, Youngstown, O.
Schieren, Chas. A., Co., New York, N. Y.
Western Packing & Supply Co., Chicago.

Cutter Adapters

(See "Adapters, Cutter")

Cutters, Bar and Angle Iron

(See "Shears, Metal Cutting")

Cutters, Belt

Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit Belt Lacer Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Manufacturers' Belt Hook Co., Chicago.

Cutters, Bolt and Rivet

(See "Clippers—Bolt, Rivet and Wire")

Cutters, Chain

Porter, H. K., Inc., Everett, Mass.

Cutters, Circle, Glass

Barrett, Wm. L., Co., Bristol, Conn.
Fletcher-Terry Co., The, Forestville, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Karelsen, E., Inc., New York, N. Y.
Millers Falls Co., Greenfield, Mass.

Cutters, Circle, Metal

Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Tool Co., The, Cincinnati, O.
Gairing Tool Co., The, Detroit, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Van Dorn Electric Tool Co., The, Towson, Md.

Cutters, Drill Press

Gairing Tool Co., The, Detroit, Mich.

Cutters, Electric Wire

Crescent Tool Co., Jamestown, N. Y.
Karelsen, E., Inc., New York, N. Y.
Porter, H. K., Inc., Everett, Mass.
Vincent Steel Process Co., Detroit, Mich.

Cutters, Emery Wheel Dresser

(See "Dressers, Emery and Grinding Wheel")

Cutters, Flue and Tube

Cowles Tool Co., Cleveland, Ohio.
International Nutyp Tool Corp., Oswego, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Chicago, Ill.
Vincent Steel Process Co., Detroit, Mich.

Cutters, Gauge Glass

Advance Packing & Supply Co., Chicago.
Barrett, Wm. L., Co., Bristol, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Chesterton, A. W., Co., Boston, Mass.
Coleman, Allan J., Chicago, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cutters, Gasket

(See "Cutters, Washer and Gasket")

Cutters, Gear

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence.
Cowles Tool Co., Cleveland, Ohio.
Farrel-Birmingham Co., Inc., Buffalo, N.Y.
Illinois Tool Works, Chicago, Ill.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Tool Co., The, Cleveland, Ohio.
National Twist Drill & Tool Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Glass

American Saw & Mfg. Co., Springfield, Mass.
Barrett, Wm. L., Co., Bristol, Conn.
Fletcher-Terry Co., The, Forestville, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Karelsen, E., Inc., New York, N. Y. (Diamond, also Machines)
Millers Falls Co., Greenfield, Mass.
Newark Brush & Scraper Co., Irvington, N. J.

Cutters, Grindstone

(See "Dressers, Emery and Grinding Wheel")

Cutters, Hole

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Gairing Tool Co., The, Detroit, Mich.
National Tool Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.

Cutters, Keyseat

Baker Brothers, Inc., Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R.I.
Burr, John T., & Son, Brooklyn, N. Y.
Chattanooga Machinery Co., Chattanooga, Tenn.
Cowles Tool Co., Cleveland, Ohio.
Illinois Tool Works, Chicago, Ill.
Ingersoll Milling Machine Co., Rockford.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Tool Co., The, Cleveland, Ohio.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.
Whitney Chain & Mfg. Co., The, Hartford.

Cutters—Lead Pipe

Bernz, Otto, Co., Inc., Rochester, N. Y.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Cutters, Milling

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.

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PIPE CUTTERS

with Thin Super-Steel Blade

RIDGID Cutter frames with internal reinforcing of tempered steel. Will not break or warp. Shaped to protect cutting blade. Rollers interchangeable to make 3-wheel cutter.

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Cutter Blade below fits any RIDGID type cutter.

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Made of thin super-steel, coined out of alloy tool steel, hammered and heat-treated. Many more cuts, quick, clean, practically no burr. Reinforced hub cast into blade.

RIDGID TUBING CUTTERS

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Made with twin-piece saddle assembled with snap-on V-pad of wear-proof spring steel. Pad irons tube smooth, ready to solder. Pipe reamer.

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No. BY 2— $4.25
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No. BY 3½— $7.50
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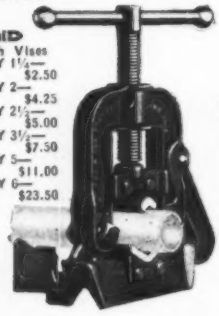
No. BY 6— $23.50



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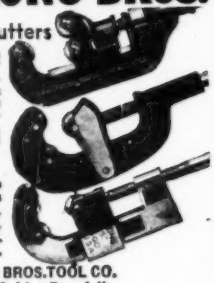

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Morse Twist Drill & Machine Co., New Bedford, Mass.
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Curtis & Curtis Co., The, Bridgeport, Conn.
Ellis & Ford Mfg. Co., Detroit, Mich.
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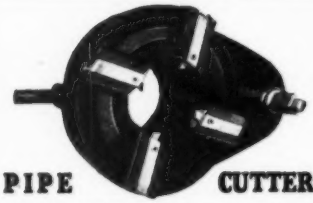
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Merrell Manufacturing Co., The, Toledo, O.
Nye Tool & Machine Works, The, Chicago.
Oster Manufacturing Co., The, Cleveland.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Strickler, W. W., & Brothers, Columbus, O.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Wells Manufacturing Corp., Three Rivers, Mich.



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Pratt & Whitney Co., Hartford, Conn.
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(See "Machines, Die Sinking")

Die Sinking Outfits

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National Tool Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.

Die Stocks

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Nye Tool & Machine Works, The, Chicago.
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National Acme Co., The, Cleveland, Ohio.
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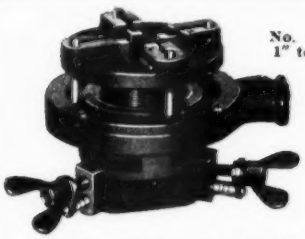

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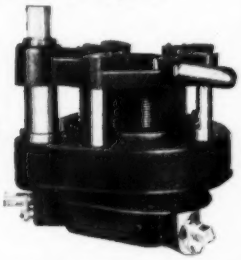

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Greenfield Tap & Die Corp., Greenfield, Mass.
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Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., The, Cleveland, Ohio.
Oster Manufacturing Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
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Worthington Pump and Machinery Corp., Harrison, N. J.

Diggers, Post Hole

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Iwan Brothers, South Bend, Ind.
Klein-Logan Co., The, Pittsburgh, Pa.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Dippers, Solder

Littleford Bros., Cincinnati, Ohio.

Dippers, Tar

Littleford Bros., Cincinnati, Ohio.

Discs, Abrasive

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Armour Sand Paper Works, Chicago, Ill.
Behr-Manning Corp., Troy, N. Y.
Besly, Charles H., & Co., Chicago, Ill.
Black & Decker Mfg. Co., The, Towson, Md.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Clover Mfg. Co., Norwalk, Conn.
Dallett Co., The, Philadelphia, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Millers Falls Co., Greenfield, Mass.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Peninsular Grinding Wheel Co., Detroit, Mich.
Van Dorn Electric Tool Co., The, Towson, Md.
Walls Sales Corp., New York, N. Y.

Discs, Bibb

Chicago Rawhide Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Mueller Co., Decatur, Ill.

Discs, Brass and Copper

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bay State Stamping Co., Worcester, Mass.
Consolidated Metal Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Stamping Co., Detroit, Mich.
Massachusetts Machine Shop, Inc., Boston, Mass.
Master Products Co., The, Cleveland, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Quadriga Mfg. Co., The, Chicago, Ill.
Scovill Mfg. Co., Waterbury, Conn.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Manufacturing & Gasket Co., Chicago, Ill.

Discs, Friction

Armstrong Cork Products Co., Lancaster, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Chicago Rawhide Mfg. Co., The, Chicago, Ill. (Leather)
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Federal Metallic Packing Co., Wakefield, Mass.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Filer & Stowell Co., The, Milwaukee, Wis.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rockwood Mfg. Co., Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.

Discs, Leather

Chicago Rawhide Mfg. Co., The, Chicago.
Columbian Iron Works, Chattanooga, Tenn.
Couse & Bolten, Inc., Newark, N. J.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Eagle Belting Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Helz & Helz, Inc., Brooklyn, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Michigan Leather Packing Co., Detroit.
Miley, L. J., Co., Inc., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Victor Manufacturing & Gasket Co., Chicago, Ill.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Discs, Valve

Atkins, E. C., and Co., Indianapolis, Ind.
Belfield, H., Co., Philadelphia, Pa.
Belmont Packing & Rubber Co., The, Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Columbian Iron Works, Chattanooga, Tenn.
Continental-Diamond Fibre Co., Newark, Del.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., The, Akron, O.
Dick, R. & J., Co., Inc., Passaic, N. J.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Durabla Manufacturing Co., New York, N. Y.
Elkhart Rubber Works, Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Metallo Gasket Co., New Brunswick, N. J.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Murray, William H., Brooklyn, N. Y.
New York Belting & Packing Co., Passaic, N. J.
Page Belting Co., Concord, N. H.
Powell, Wm., Co., The, Cincinnati, Ohio.
Quadriga Mfg. Co., The, Chicago, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Balata & Textile Belting Co., New York, N. Y.
Walworth Co., New York, N. Y.

Dividers

Bernz, Otto, Co., Inc., Rochester, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Dietzgen, Eugene, Co., Chicago, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Johnson, William, Inc., Newark, N. J.
Lufkin Rule Co., The, Saginaw, Mich.
Peck, Stow & Wilcox Co., Southington, Conn.

Dogs and Hooks, Bench

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Sargent & Co., New Haven, Conn.

Dogs, Chain

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland.
Columbus McKinnon Chain Corp, Tonawanda, N. Y.
Dallett Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hodell Chain Co., The, Cleveland, Ohio.
Loomis Machine Co., Tiffin, Ohio.
Palmer-Bee Co., Detroit, Mich.
Vulcan Tool Mfg. Co., Quincy, Mass.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Dogs, Clamp

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Williams, J. H., & Co., New York, N. Y.

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DEPENDABLE, LONG-LIVED TOOLS

Drop-forged, with hardened and tempered screws of special steel, "VULCANS" are furnished in Bent and Straight-Tail patterns, single or double screws, either safety or set-screw heads. Also, full lines of Clamp and Milling-Machine Dogs. Ask for literature.

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"The Wrench People"
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SUPERIOR DROP-FORGED TOOLS

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Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Tool & Engineering Co., Chicago.
Collmer Bros., South Bend, Ind.
Williams, J. H., & Co., New York, N. Y.

Dogs, Milling Machine

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Williams, J. H., & Co., New York, N. Y.

Dogs, Sawmill

Allis-Chalmers Manufacturing Co., West Allis, Wis.
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***Drop Forged* LATHE and Milling Machine DOGS**

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Cleveland Chain & Mfg. Co., The, Cleveland.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Menasha Wood Split Pulley Co., Menasha, Wis.
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Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
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American Rolling Mill Co., The, Middletown, Ohio.
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Fairbanks, Morse & Co., Chicago, Ill.
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Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
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Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
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Schutte & Koerting Co., Philadelphia, Pa.
Swaby Mfg. Co., Chicago, Ill.
Sweet, A. L., Iron Works, Medina, N. Y.
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Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.
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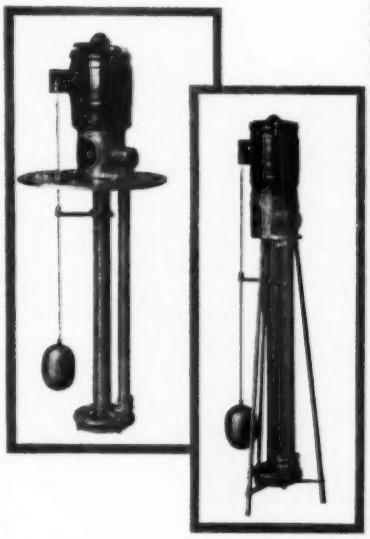

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VINCENT-HUNTINGTON

Grinding Wheel Dressers and Cutters

Types and sizes of DRESSERS

No. 0 Regular Type—No. 0 Hooded Type—No. 0 Special Type—No. 1 Hooded Type—No. 1 Special Hooded Type—No. 2 Hooded Type.

No. 0 Dressers are for use on wheels up to 1½" thick.

No. 1 Dressers are for use on wheels up to 1⅝" to 2" thick.

No. 2 Dressers are for use on wheels 2¼" thick and over.

All Vincent Dressers are equipped with hardened steel pins and bushings.

Types and Sizes of CUTTERS

No. 0 for any No. 0 Dresser (18 teeth).

No. 0 Extra Thin (18 pieces to set).

No. 1 1½" dia. with ½" hole, for any No. 1 Dresser. Available with bushing 15/32" x½" with ¼" hole.

No. 1 Special—heavier and larger than regular No. 1, for No. 1 Special Dresser or any dresser requiring cutter 1⅝" diameter with ⅜" hole.

No. 2 largest Huntington type, 2⅜" dia. with ⅝" hole, for any No. 2 Dressers. Available with bushing ⅝" x 1" with 5/16" hole.

No. 0 Bushed or "Paragon", supplied with hardened steel bushing in center 7/16" x 15/32" with ¼" hole.

Many great industrial plants specify VINCENT-HUNTINGTON Grinding Wheel Dressers and Cutters because experience has proven their economy. Cutters are milled—not stamped—and treated by "Vincent Process" heat treating. Our line is complete. Write for our catalog sheets.

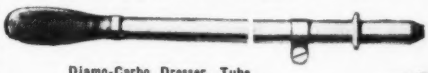
Every VINCENT Cutter Has 18 Teeth *Count Them!*

The VINCENT STEEL PROCESS COMPANY

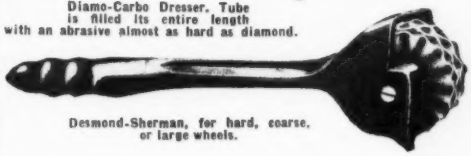
2434 Bellevue Ave., Detroit, Mich.

GRINDING WHEEL DRESSERS

Desmond-Huntington Dressers, for use on largest and hardest grinding wheels where quick action is necessary.



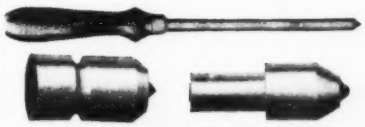
Diamo-Carbo Dresser. Tube is filled its entire length with an abrasive almost as hard as diamond.



Desmond-Sherman, for hard, coarse, or large wheels.

"WE manufacture the only complete line of Grinding Wheel Dressers and Cutters and have been recognized as headquarters for these tools for over 30 years.

Write today for your copy of our complete new Dresser and Cutters catalog and price sheet.

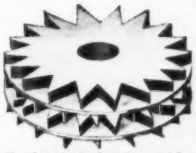


DESMOND DIAMOND DRESSER

The ideal tool for precision grinders. Hand tools and diamond nibs for Norton and Landis grinders shown above. Diamonds also mounted in all special holders.

DESMOND-HEX DRESSER

Most durable mechanical dresser made. Hexagon bearing nuts inserted in jaws give six sets of bearings. No wear on holder.



Hardened steel cutter made in three sizes for Desmond-Huntington Dressers.

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URBANA, OHIO

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Angle Steel Stool Co., Plainwell, Mich.
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Rowe, Henry, Mfg. Co., Newaygo, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.

Dressers, Bibb Seat

Bernz, Otto, Inc., Rochester, N. Y.
Crane Co., Chicago, Ill.
Johnson, William, Inc., Newark, N. J.

Dressers, Diamond

Chicago Wheel & Mfg. Co., Chicago, Ill.
Commercial Diamond Co., Detroit, Mich.
Desmond-Stephan Mfg. Co., Urbana, O.
Karelsen, E., Inc., New York, N. Y.
Vincent Steel Process Co., Detroit, Mich.

Dressers, Emery and Grinding Wheel

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Bay State Stamping Co., Worcester, Mass.
Calder, Geo. H., Co., Lancaster, Pa.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Collmer Bros., South Bend, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Curtin-Hebert Co., Inc., Gloversville, N. Y.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Dumore Co., The, Racine, Wis.
Greene, Tweed & Co., New York, N. Y.
Karelsen, E., Inc., New York, N. Y.
Luther Grinder & Tool Co., Milwaukee.
Oliver Motorcraft Corp., Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Sandvik Saw & Tool Corp., Minneapolis.
Standard Tool Co., Cleveland, Ohio.
Vincent Steel Process Co., Detroit, Mich.
Wave Cut File & Tool Corp, New York.

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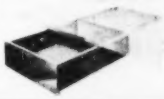
A-S-E Bench Drawers, made to fit any steel or wood top bench, are built of heavy steel for hard shop use and the complete protection of their contents. Steel top entirely covers the drawer. It flanges up on the front to form face strip for the bench and over the sides to form sliding channels. A-S-E drawers can take plenty of use and abuse. Write for details.



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DRUMS — Liquid in choice of 4 densities, packed in tins and drums from 1 pint to 60 gallon capacity.

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Beltonic Safstick Bar

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BELT DRESSING

Safe - Convenient and Economical

"Safstick" holder protects fingers from injury, saves the user's time, and allows the bar to be used to the very end. Patented device keeps bar from slipping back in holder. One pound bars.

Sold exclusively by mill supply houses. Ask for prices and sample of folders furnished distributors.

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Baltimore Belting Co., Baltimore, Md
Beltonic Products Co., Chicago, Ill
Black Diamond Paint & Varnish Co., The, Cincinnati, Ohio.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Capen Belting & Rubber Co., St. Louis, Mo.
Chesterton, A. W., Co., Boston, Mass.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Cling-Surface Co., Buffalo, N. Y.
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Couse & Bolton, Inc., Newark, N. J.
Degen-Fiege Belting Co., Los Angeles, Cal.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Eagle Belting Co., Chicago, Ill.
Goodrich, B. F., Co., The, Akron, Ohio.
Craton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Hinds and Coon Co., Boston, Mass.
Home Rubber Co., Trenton, N. J.
Jerry Bros. Belting Co., Richmond, Va.
Jobbers Mfg. Co., Chicago, Ill.
McCauley Belting Co., Chicago, Ill.
Magic Leather Treatment Co., Detroit.
Main Belting Co., Philadelphia, Pa.
Manufacturers' Belt Hook Co., Chicago.
Norton Belting Co., Wellesley Hills, Mass.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rhoads, J. E., & Sons, Philadelphia, Pa.
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Sero Specialty Co., Cleveland, Ohio.
Stephenson Mfg. Co., Albany, N. Y.
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Webb, J. A., Belting Co., Inc., Buffalo.
White & Bagley Co., The, Worcester, Mass.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

WIZARD Stick Belt Dressing

Wizard Belt Sticks contain no rosin, rosin oil, fish oil or any other substance harmful to belting. We use pure castor oil, which makes the belt soft and flexible, able to hug the pulley and deliver the maximum load.

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Atkins, E. C., and Co., Indianapolis, Ind.
Atlantic Manufacturing Co., Wilmington, Del.
Baltimore Belting Co., Baltimore, Md.
Baum's Castorine Co., Rome, N. Y.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Bonner & Barnewall, Inc., New York, N. Y.
Burrell Belting Co., Chicago, Ill.
Capen Belting & Rubber Co., St. Louis, Mo.
Chesterton, A. W., Co., Boston, Mass.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Cling-Surface Co., Buffalo, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J.
Commercial Chemical Co., Boston, Mass.
Couse & Bolten, Inc., Newark, N. J.
Covell-Hanchett Co., Big Rapids, Mich.
Curry Brothers Oil Co., Boston, Mass.
Degen-Fiege Belting Co., Los Angeles, Cal.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Detroit Oak Belting Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Duryea Products Co., New York, N. Y.
Eagle Belting Co., Chicago, Ill.
Ensign Products Co., Cleveland, Ohio. (Liquid only)
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Hinds and Coon Co., Boston, Mass.
Holyoke Belting Co., Holyoke, Mass.
Home Rubber Co., Trenton, N. J.
Ideal Commutator Dresser Co., Sycamore, Ill.
Imperial Belting Co., Chicago, Ill.
Jerry Bros. Belting Co., Richmond, Va.
Jobbers Mfg. Co., Chicago, Ill.
Johnson Belting Co., New York, N. Y.
Kant Slip Mfg. Co., Chicago, Ill. (Liquid only)
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.

SAVING POWER and BELTS for 50 YEARS

HAS NEVER BEEN SUCCESSFULLY IMITATED

THERE'S NOTHING JUST LIKE IT TO PREVENT BELT SLIP AND LENGTHEN BELT LIFE

At Supply Houses Everywhere

JOSEPH DIXON CRUCIBLE CO.
Established 1827 — Jersey City, N. J.

DIXON'S Solid BELT DRESSING

Marion Machine, Foundry & Supply Co., Marion, Ind.
Norton Belting Co., Wellesley Hills, Mass.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Protection Products Mfg. Co., Detroit, Mich.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rockwood Mfg. Co., Indianapolis, Ind.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Sero Specialty Co., Cleveland, Ohio.
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
White & Bagley Co., The, Worcester, Mass.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Dressing, Rope Drive

Alexander Brothers, Inc., Philadelphia, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Baltimore Belting Co., Baltimore, Md.

A DECIDEDLY BETTER BELT DRESSING

A neatsfoot oil product

In pints, quarts, gallons

Sea Lion Belt Oil

Made by the manufacturers of Tension Welded leather belting—America's highest quality leather belting

Immediately stops belt slippage; reconditions old belt surfaces; makes old belts pull like new; keeps belts soft and pliable—the way they should be; frequently increases machine output; greatly increases belt life; prevents leather belts from drying.

Sea Lion Belt Oil is a recently perfected product rapidly becoming standard in hundreds of plants as the most dependable belt treatment on the market. Once used it is always used. Put up in handy pints and quarts as well as gallons. **This is THE new best seller among belt dressings.**

GRIPSTICK. Chicago Belting's bar belt dressing. A splendid bar—with all the guarantees of quality that the Chicago Belting name implies. Write for prices. They are priced right for dealers. There is no better stick dressing than Gripstick.

Green & Washington, Chicago

Manufactured by
Chicago Belting Company

RESEARCH BELT DRESSING

MADE BY THE MEN who make the Belting!

Conclusive evidence of the acceptance and saleability of Research Belt Dressing lies in the actual reactions we have gotten from the results obtained by users of the dressing. 5 to 20% increases in delivered H.P. have been reported and we have also received reports such as 9% increase in machine production obtained by a large manufacturing plant.

This natural selling Belt Dressing made by the men who make Research Belting is nationally advertised in MODERN MACHINE SHOP and MILL & FACTORY. It is logical that a manufacturer of belting should know what ingredients make the best dressing and you should sell more belt dressing of this kind. You can stock Research in three convenient sized cans—1/2 gallon, gallon and 5 gallon. We shall be pleased to give you complete information and prices.

Other Graton & Knight products—Research Belt Dressing, Lace Leathers, Round Belting and Belting Cements.

LIQUID and STICK BELT DRESSINGS

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GRATON & KNIGHT COMPANY
Worcester, Mass.
THE HOME OF RESEARCH

Black Diamond Paint & Varnish Co., The, Cincinnati, Ohio.
Cling-Surface Co., Buffalo, N. Y.
Commercial Chemical Co., Boston, Mass.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Himmelein & Bailey, Inc., Camden, N. J.
Jobbers Mfg. Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Sero Specialty Co., Cleveland, Ohio.
Stephenson Mfg. Co., Albany, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Dressing and Lubricants, Wire Rope

American Oil & Grease Corp., Chicago, Ill.
Baum's Castorine Co., Rome, N. Y.
Cling-Surface Co., Buffalo, N. Y.
Commercial Chemical Co., Boston, Mass.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey, N. J.
Ensign Products Co., Cleveland, Ohio.
Franklin Oil & Gas Co., The, Bedford, Ohio.
Jobbers Mfg. Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.

"NATURAL GRIP"

A Belt Dressing of Unusual Quality

This cleanser and dressing keeps belt surfaces clean and pliable, and makes them grip. Easy to apply while belt is running. Effective immediately on rubber or leather. Will not form cakes on belt. Write for descriptive literature.

CHAS. A. SCHIEREN CO.
42 FERRY ST., NEW YORK

"YOU CAN SELL THIS ITEM"

The Sensational New

ROCKWOOD BELT-PULL

A Remarkable Para-Rubber Product

PUTS NEW LIFE IN OLD BELTS

Makes worn rubber and canvas belts pull like new. Wonderfully effective on leather. Reconditions the belt surface. Easy to apply. Takes hold INSTANTLY. Renews grip on worn belts that slip. Ideal for dry and dusty conditions. NOTHING TO EQUAL **BELT-PULL** HAS EVER BEEN SEEN.

Sell To All Your Belt Users

MEETS A BIG DEMAND. SELL IT. Quarts, $1.10, gallons, $3.25 — handy, fast selling, popular tubes, 25c.

BUY A SMALL STOCK. DISPLAY IT. THAT IS ALL YOU HAVE TO DO. It's an added service to your customers.

ROCKWOOD MFG. CO.
INDIANAPOLIS, INDIANA

Leschen, A., & Sons Rope Co., St. Louis.
Magic Leather Treatment Co., Detroit.
Sero Specialty Co., Cleveland, Ohio.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Stuart, D. A., Oil Co., Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.
Wire Rope Lubricating Co., Trenton, N. J.

Drill, Anvil and Vise Combined

(See "Anvil, Vise and Drill Combined")

Drill Drifts

Armstrong Bros. Tool Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland.
Collis Co., The, Clinton, Iowa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drill Points

(See "Points, Drill")

Drill Speeders

(See "Speeders, Drill")

Drilling Attachments

Barnes Drill Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buffalo Forge Co., Buffalo, N. Y.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Craley, C. C., Mfg. Co., Shillington, Pa.
Ettco Tool Co., Brooklyn, N. Y.
Hisey-Wolf Machine Co., The, Cincinnati.
Mueller Co., Decatur, Ill.
North Bros. Mfg. Co., Philadelphia, Pa.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.

Drilling Machines

(For drilling machines not found under the heading "Drills," see "Machines, Drilling.")

Drilling Machinery and Tools, Well

(See "Machines and Tools, Drilling, Well")

Drills, Air

(See "Machines, Drilling, Pneumatic")

Drills, Automatic Push

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

Drills, Bakelite Type

Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Bell Hangers' and Electricians'

Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Twist Drill Co., The, Cleveland.
Crescent Tool Co., Jamestown, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Bit Stock

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Blacksmiths'

Alvord-Polk Tool Co., Millersburg, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill and Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Breast

(See "Machines, Drilling—Breast, Chain and Hand")

Drills—Brick, Stone, Concrete, Masonry, Etc.

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Arro Expansion Bolt Co., Marion, Ohio.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Cleveland Twist Drill Co., The, Cleveland.
Crucible Steel Co. of America, New York.
Dallett Co., The, Philadelphia, Pa.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kraeuter & Co., Inc., Newark, N. J.
Mall Tool Co., Chicago, Ill.
Newhall Chain Forge & Iron Co., New York, N. Y.
Parker-Kalon Corp., New York, N. Y.
Plomb Tool Co., Los Angeles, Calif.
Portable Power Tool Corp., Warsaw, Ind.
Rawlplug Co., Inc., The, New York, N. Y.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Star Expansion Bolt Co., New York, N. Y.
Van Dorn Electric Tool Co., The, Towson, Md.
Vichek Tool Co., The, Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.
Wodack Electric Tool Corp., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Center

Bay State Tap & Die Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Coal

Chattanooga Machinery Co., Chattanooga, Tenn.
Chicago Pneumatic Tool Co., New York.
Clark, James, Jr., Electric Co., Louisville, Ky.
Cleveland Rock Drill Co., The, Cleveland.
Crucible Steel Co. of America, New York, N. Y.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Leetonia Tool Co., The, Leetonia, Ohio
Loomis Machine Co., Tiffin, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Core

Dobbins Core Drill Co., Inc., Long Island City, N. Y.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Ingersoll-Rand Co., New York, N. Y.
National Twist Drill & Tool Co., Detroit, Mich.
Scully-Jones & Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

RAWLDRILLS
REG. U.S. PAT. OFF.
Easily Sharpened
3-Point-Drill Faster and Last Longer
The most economical masonry drills at any price when you consider their life and drilling speed. They can be resharpened on any grinding wheel. A nationally known and used product of unequalled effectiveness. Our Jobbers' Merchandising Plan insures a profitable business. Write for full information.
THE RAWLPLUG COMPANY, Inc.
96-97 Lafayette St. New York, N.Y. - and everywhere

Drills, Diamond Pointed

(See "Tools, Diamond Pointed")

Drills, Electric, Portable

Black & Decker Mfg. Co., Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.

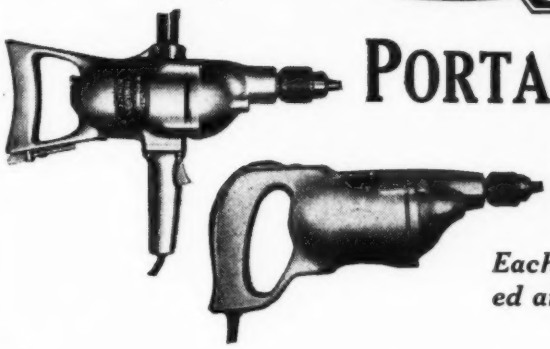
(Continued on page 133)

• STANLEY •
ELECTRIC DRILLS
With Patented Chuck Key Pocket

• Stanley Electric Drills combine strength and ruggedness with lightness and power. They have all the qualities you expect to find in a good drill plus a distinctive straight line design, and several patented features.
• A complete line—14 numbers to choose from—capacities 3/16" to 7/8".
• Write for catalog.
STANLEY ELECTRIC TOOL DIVISION
The Stanley Works
141 Elm Street New Britain, Conn.
STANLEY Electric TOOLS

Turn to the "Trade Name Index" for trade names

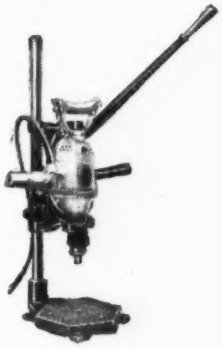
BLACK & DECKER



PORTABLE ELECTRIC DRILLS

Ranging in capacity from 3/16" to 1 1/2"

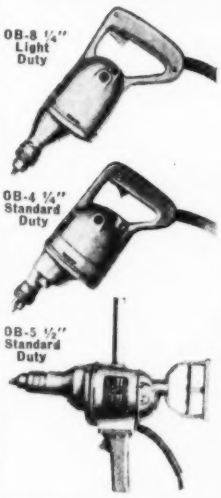
Each tool properly powered and built for its field of application



It is the aim of the Black & Decker Engineering Staff not only to supply a complete line of portable electric tools to meet industry's present day requirements, but through a continuous program of improvement and development, to anticipate industry's needs of tomorrow.

The Black & Decker Mfg. Co.
Towson, Maryland

Portable Electric DRILLS



SIGNAL portable electric Drills are high quality tools at unusually low prices. On production jobs or for intermittent service work, they are always dependable. Write for interesting price information.

SIGNAL ELECTRIC MFG. CO.
Menominee, Michigan, U. S. A.

SIGNAL

Drills, Electric, Portable

(Continued from page 132)

Clark, James, Jr., Electric Co., Louisville.
Dumore Co., The, Racine, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Ideal Commutator Dresser Co., Sycamore, Ill.
Independent Pneumatic Tool Co., Chicago.
Keystone Reamer & Tool Co., Millersburg, Pa.
Louisville Electric Mfg. Co., Louisville.
Mall Tool Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Misener Mfg. Co., Inc., Syracuse, N. Y.
Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Schauer Machine Co., The, Cincinnati, O.
Signal Electric Mfg. Co., Menominee, Mich.
Simonds Saw and Steel Co., Fitchburg.
Skilsaw, Inc., Chicago.

(Turn to page 134)

SKILSAW DRILLS

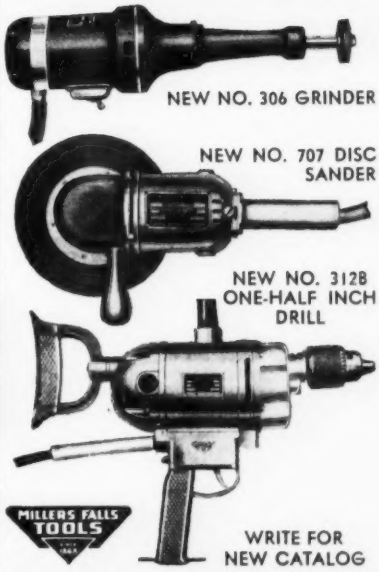
HUSKIER
SMOOTHER
FINER

Extra powerful motors. Die-cast aluminum alloy bodies. Highest quality ball-bearings. Made in 14 models.

See page 29 for full specifications and prices.

SKILSAW, INC. • 3330 Elston Ave., Chicago

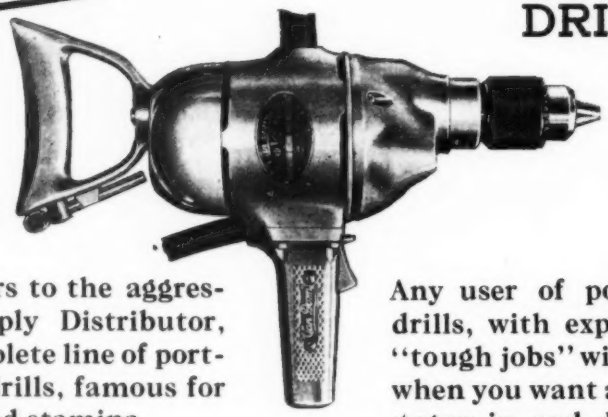
NEW TOOLS for EXTRA BUSINESS



MILLERS FALLS COMPANY
Greenfield, Massachusetts

"Van Dorn"

POWERFUL ELECTRIC DRILLS



Van Dorn offers to the aggressive Mill Supply Distributor, the most complete line of portable electric drills, famous for their power and stamina.

Any user of portable electric drills, with experience on the "tough jobs" will tell you that, when you want a drill that will "stay in and deliver"—

For Power Specify "Van Dorn"

The Van Dorn Electric Tool Co.

TOWSON, MARYLAND

Drills, Electric, Portable

(Continued from page 133)

Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electrical Tool Division, The Stanley Works, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Syntron Company, Pittsburgh, Pa.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.
Wodack Electric Tool Corp., Chicago, Ill.

Drills, Electric, Stationary

(See "Machines, Drilling, Electric, Stationary")

Drills, Hammer

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Hubbard & Co., Pittsburgh, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Rawlplug Co., The, New York, N. Y.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Star Expansion Bolt Co., New York, N. Y.
Van Dorn Electric Tool Co., The, Towson, Md.
Wodack Electric Tool Corp., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Left Hand

Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Masonry

(See "Drills, Brick, Stone, Concrete, Masonry, Etc.")

Drills, Oil Hole

Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Ingersoll-Rand Co., New York, N. Y.
Loomis Machine Co., Tiffin, Ohio.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Oil Well, Portable

Loomis Machine Co., Tiffin, Ohio.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Pipe Tapping

Barnes Drill Co., Rockford, Ill.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
National Twist Drill & Tool Co., Detroit, Mich.
Standard Tool Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.

Drills, Plug

American Swiss File & Tool Co., Elizabeth, N. J.
Drew, C., & Co., Kingston, Mass.
Ingersoll-Rand Co., New York, N. Y.
Vulcan Tool Mfg. Co., Quincy, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Pneumatic

(See "Machines, Drilling, Pneumatic")

Drills, Portable, Electric

(See "Drills, Electric, Portable")

Drills, Post

Black & Decker Mfg. Co., The, Towson, Md.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Keystone Mfg. Co., Buffalo, N. Y.
Lowell Wrench Co., Worcester, Mass.
Portable Power Tool Corp., Warsaw, Ind.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Drills, Radio, in Sets

Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
New Process Twist Drill Co., Taunton, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Ratchet

(See "Ratchets and Ratchet Drills")

Drills Reciprocating

Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Ingersoll-Rand Co., New York, N. Y.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Wodack Electric Tool Corp., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

UMI

Drills, Spring Hammer

Cincinnati Tool Co., The, Cincinnati, Ohio.
Star Expansion Bolt Co., New York, N. Y.
Wodack Electric Tool Corp., Chicago, Ill.

Drills, Star Point

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Arro Expansion Bolt Co., Marion, Ohio.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Expansion Bolt Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Crescent Tool Co., Jamestown, N. Y.
Crucible Steel Co. of America, New York.
Diamond Expansion Bolt Co., Garwood, N. J.
Drew, C., & Co., Kingston, Mass.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Kraeuter & Co., Inc., Newark, N. J.
Millers Falls Co., Greenfield, Mass.
Newhall Chain Forge & Iron Co., New York, N. Y.
Plomb Tool Co., Los Angeles, Calif.
Rawlplug Co., Inc., The, New York, N. Y.
Star Expansion Bolt Co., New York, N. Y.
Syntron Co., Pittsburgh, Pa.
U. S. Expansion Bolt Co., New York, N. Y.
Van Dorn Electric Tool Co., The, Towson, Md.
Vulcan Tool Mfg. Co., Quincy, Mass.
Wodack Electric Tool Corp., Chicago, Ill.

AMERICAN SWISS
STAR DRILLS
STONE DRILLS
A Complete Line for
Drilling Stone and Concrete
ONLY THE BEST
American Swiss File and Tool Co.
ELIZABETH, N. J.

Drills, Stone

American Swiss File & Tool Co., Elizabeth, N. J.
Chattanooga Machinery Co., Chattanooga, Tenn.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, O.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Twist Drill Co., The, Cleveland.
Crucible Steel Co. of America, New York.
Diamond Expansion Bolt Co., Garwood, N. J.
Drew, C., & Co., Kingston, Mass.
Ingersoll-Rand Co., New York, N. Y.
Loomis Machine Co., Tiffin, Ohio.
Mall Tool Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Newhall Chain Forge & Iron Co., New York.
Portable Power Tool Corp., Warsaw, Ind.
Rawlplug Co., Inc., The, New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Expansion Bolt Co., New York, N. Y.
Stow Mfg. Co., Inc., Binghamton, N. Y.
U. S. Expansion Bolt Co., New York, N. Y.
Vichek Tool Co., The, Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Straight Shank and Taper Shank

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Chicago Expansion Bolt Co., Chicago, Ill.
Clark Equipment Co., Buchanan, Mich.

ARMSTRONG
Drop Forged
STAR DRILLS
Drop forged from special steel, hardened, heat treated and tempered. Special design, cut fast, hold sharpness.
All Sizes by 1/16ths" to 2".
One of the few complete lines of standard quality and price. The line to sell.
ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
332 N. Francisco Ave.,
CHICAGO, U. S. A.
Write for Circular.
New York Sales & Whse: 199 Lafayette St.

Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Crucible Steel Co. of America, New York.
Diamond Expansion Bolt Co., Garwood, N. J.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
New Process Twist Drill Co., Taunton, Mass.
Sampson Tool Co., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Tap

Alvord-Polk Tool Co., Millersburg, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Three and Four Fluted

Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Tool Co., Detroit, Mich.
National Twist Drill & Tool Co., Detroit, Mich.
Standard Tool Co., The, Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Track

Bay State Tap & Die Co., Mansfield, Mass.
Chicago Pneumatic Tool Co., New York.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Ingersoll-Rand Co., New York, N. Y.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Syntron Co., Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Whitman and Barnes, Inc., Detroit, Mich.

SHIELD BRAND
DRILLS
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Reliable
Efficient
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Production.
Look for this Trade Mark on every tool
REAMERS
TAPS—DIES
MILLING
CUTTERS
WHEEL
DRESSERS
CHUCKS—ETC.
THE STANDARD TOOL CO.
CLEVELAND
NEW YORK - DETROIT - CHICAGO

Drills, Twist

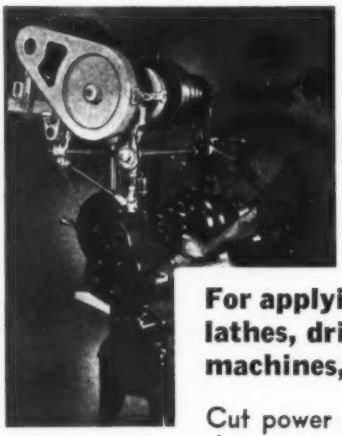
Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Diamond Expansion Bolt Co., Garwood, N. J.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hammel, Riglander & Co., Inc., Importers, New York, N. Y.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Stevens, Walden, Inc., Worcester, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Twist, Flat

Ace Drill Co., Detroit, Mich.
Alvord-Polk Tool Co., Millersburg, Pa.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
New Process Twist Drill Co., Taunton, Mass.
Tallman Manufacturing Co., Shelbyville, Ill.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Twist, Wire Gauge

Ace Drill Co., Detroit, Mich.
Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Clark Equipment Co., Buchanan, Mich.



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MOTOR DRIVE

For applying electric power *direct* to lathes, drill presses, shapers, milling machines, and other machine tools.

Cut power costs for your customers. Help them increase production, thru a better arrangement of their present machine tools, without regard for line shaft location. You can — by recommending Remco Motor Drives. The only drive that is adjustable in any direction. Simple installation! Wide market! Good profits! Write for details.

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Tell us the number, and type, of machines your customer plans to motorize; and we'll help you sell him. Complete—convincing—presentations prepared. Put a job up to our engineers today—no obligation!

Manley Products Corporation, York, Penna.

Chicago Belting Company

CHICAGO BELTING-- ROCKWOOD MOTOR DRIVES

From 6 to 10% more efficient than V-belts—require less maintenance—and save in power. They keep machines up to speed more dependably and at lower costs than any other drives. Chicago Belting specializes in these fine Drives that are so popular. Complete engineering service—free installation sketches—complete stocks of bases and unqualified guarantees of each installation made by their dealers.

CHICAGO BELTING COMPANY
Green and Washington Sts., Chicago, Ill.

Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Well

Chicago Pneumatic Tool Co., New York.
Crucible Steel Co. of America, New York.
Dobbins Core Drill Co., Inc., Long Island City, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Loomis Machine Co., Tiffin, Ohio.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills and Countersinks Combined

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Bradley Washfountain Co., Milwaukee.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Slocomb, J. J., Co., Providence, R. I.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drinking Fountains

(See "Fountains, Drinking")

Drivers, Drift Bolt and Spike

Ingersoll-Rand Co., New York, N Y.

Drives, Chain

(See "Chain, Transmission")

Drives, Friction Disc

Armstrong Cork Products Co., Lancaster, Pa.
Chicago Belting Co., Chicago, Ill.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Medart Co., The, St. Louis, Mo.
Rockwood Mfg. Co., Indianapolis, Ind.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Drives, Power, Electric

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Beaver Pipe Tools, Inc., Warren, Ohio.
Chicago Belting Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Link-Belt Co., Chicago, Ill.
Manley Products Corp., York, Pa.
Manley Manufacturing Div. of American Chain Co., Inc., York, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Drives, Power, Gasoline Motor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chicago Belting Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Pyott Foundry & Machine Co., Chicago.

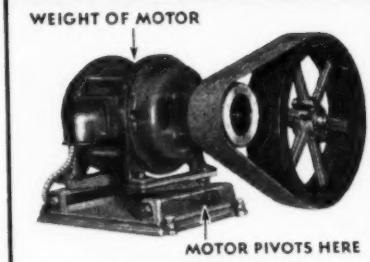
Drives, Rope

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Manufacturing Co., Brooklyn.
Chicago Rawhide Mfg. Co., The, Chicago.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Fitler, Edwin H., Co., The, Philadelphia.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Pyott Foundry & Machine Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Sutorbilt Corporation, Los Angeles, Calif.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Drives, Short Belt

Baldwin Belting & Leather Co., Inc., New York, N. Y.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Downs, I. G., Denver, Colo.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.

Rockwood Pivoted Motor Drives



For the First Time Makes Short Center Drives Truly Satisfactory

Rockwood pivoted motor drives are recognized as better motor drives that save belts, maintenance and power. Over 40,000 are now in use and they are widely accepted in all industries as the one truly satisfactory short center motor drive.

Their use increases machine output, reduces power costs and eliminates the bother and expense of drive take-ups. Once installed they give dependable performance, month after month—with scarcely a moment's attention. The first cost is usually less than for other drives.

Adopted by Textile Industry. The preferred drive of the Ice Industry. Outstandingly superior for compressors. Ideal for woodworking plants. An improvement and economy on machine tools. Sold almost entirely through distributors.

PUT IN A STOCK AND BE IN THE PICTURE

Join the procession. Put in a stock and get your share of these fast selling new standard drives for motors. They are profitable items with good turnover. **Write for dealer's discounts.**

ROCKWOOD MFG. CO.
INDIANAPOLIS, INDIANA

MEDART

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Single and Multiple

Medart V-rope drives are available in all standard designs. Write for the Medart Catalog 56-V, which contains complete instructions, prices, and engineering data.

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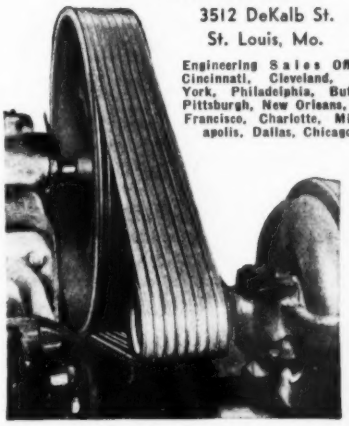
Engineering Sales Offices: Cincinnati, Cleveland, New York, Philadelphia, Buffalo, Pittsburgh, New Orleans, San Francisco, Charlotte, Minneapolis, Dallas, Chicago.



Manley Manufacturing Div. of American Chain Co., Inc., York, Pa.
Manley Products Corp., York, Pa.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., Indianapolis, Ind.
Sutorbilt Corporation, Los Angeles, Calif.
Schieren, Chas. A., Co., New York, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Williams, I. B., & Sons, Dover, N. H.
Wood's, T. B. Sons Co., Chambersburg, Pa.

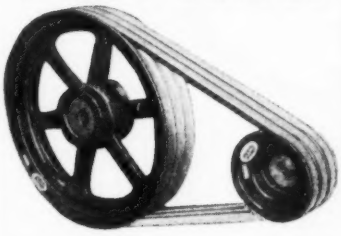
Drives, "V" Belt

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Dayton Rubber Mfg. Co., The, Dayton, O.
Delta Mfg. Co., Milwaukee, Wis.
Dick, R. & J., Co., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Gates Rubber Co., The, Denver, Colo.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manley Manufacturing Div. of American Chain Co., Inc., York, Pa.
Manley Products Corp., York, Pa.
Medart Co., The, St. Louis, Mo.
Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago.
Raniville, F., Co., Grand Rapids, Mich.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.

(Continued on page 138)

BROWNING

V-BELT DRIVES



LARGEST FACTORY STOCK

DISTRIBUTING STOCKS EVERYWHERE

Ohio Valley Pulley Works

Div.—Browning Mfg. Co.

Maysville, Ky.

DICK DRIVES

AND

POWER TRANSMISSION SPECIALTIES

Complete Lines V-Belts and Sheaves

Dickrope Brand V-Belts and Sheaves with interchangeable cast iron bushings.

V-Flat Drives and all varieties of installations, using V-Belts.

R. & J. DICK CO., Inc.

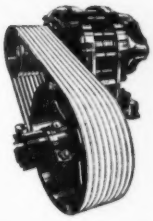
Passaic, N. J.

Branches—

New York Chicago Seattle San Francisco Kansas City New Orleans

Manufacturers' Street Addresses will be found in the "Names and Addresses" Section

TEXROPE DRIVES



TEXROPE DRIVES offer power transmission that may be adapted to machinery mountings in any direct position. They eliminate shut-downs, are 98.9% efficient, require no belt dressing or lubrication, are unaffected by dirt or moisture, are vibrationless, slipless and silent. Texrope Drives are built in ranges from ½ to 2,000 H.P. and in speed ratios from 1 to 1, to 10 to 1 in all popular motor ratings.

TEXROPE V-BELTS These belts, made for Allis-Chalmers by the B.F.Goodrich Rubber Co., are scientifically designed to withstand flexing and are formed in precisely machined moulds. The extreme accuracy of both Texrope Sheaves and V-Belts combine to give a very high degree of efficiency and long life.

DURO-BRACE SHEAVE The outside walls of this new sheave are reinforced with convex steel plates which so greatly increase their strength as to eliminate distortion, even under extreme overloads—thus giving a true-running, vibrationless drive always.

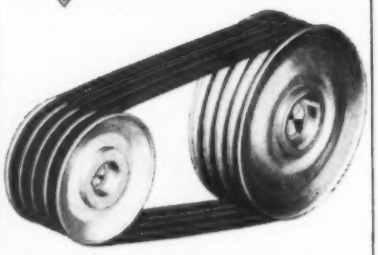
VARI-PITCH SHEAVE The Vari-Pitch Texrope Sheave represents a vital new development in power transmission. In this new sheave, by a simple adjustment which takes but a few moments, the pitch can be altered so as to give a variation in speed of from 15 to 25 per cent.

STRAITLINE MOTOR BASE With the new Straitline Automatic Ball Bearing Motor Base the finest adjustments are possible and easy to accomplish—all you do is turn a hand-wheel. The indicator dial, on this new motor base, tells you exactly what your tension is at all times and you can make your adjustment while running. This base eliminates all guesswork.

ALLIS-CHALMERS MFG. CO.
MILWAUKEE, WISCONSIN

TEXROPE DRIVES

ROCKWOOD V-BELT DRIVES



ROCKWOOD ENGINEERED

V-BELT DRIVES

Sell this truly superior complete line

Rockwood offers a complete line of superior V-belt drives from fractional h.p. to 1,000 h.p. It was developed to be sold through distributors, by distributors' salesmen. Designed in answer to the demand for better drives—with accurate smooth surfaced sheaves and superior V-belts.

Rockwood V-belt drives are made to conservative Rockwood engineering standards and are dependable and satisfactory drives when selected from the engineering data in Rockwood's new V-belt books. With these drives your customers receive satisfactory drive performance and longer V-belt life. You are protected against drives that are failures.

Immediate delivery from nearby stocks

In V-belts, service is all important and Rockwood has large stocks of belts and sheaves throughout the United States. There is a stock near you—to give you immediate delivery—a service you will appreciate as well as your customers.

Write for these two New and Valuable Books

Just off the press. The SIMPLEST V-belt data books you have ever seen. It is easy to figure V-belt drives with the New Rockwood V-Belt Drive data books. YOU WANT THESE BOOKS. Write for them and they will come to you by return mail.

ROCKWOOD MFG. CO.
INDIANAPOLIS, INDIANA

Drives, "V" Belt

(Continued from page 137)

Rockwood Mfg. Co., Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Sutorbilt Corporation, Los Angeles, Cal.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.
Wood's, T. B., Sons Co., Chamberburg, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drives, Variable Speed

(See "Transmissions, Variable Speed")

Drum Pulleys

(See "Pulleys, Drum")

Drums or Barrels, Shipping, Steel

(See "Barrels and Drums, Steel")

Dryers, Metal Parts, Electric Portable

Ideal Commutator Dresser Co., Sycamore, Ill.

Dryers, Mould, Portable, Electric

Ideal Commutator Dresser Co., Sycamore, Ill.
R. S. Products Corp., Philadelphia, Pa.

Dryers, Sand

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Hersey Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Punxsutawney Foundry and Machine Co., Punxsutawney, Pa.
R. S. Products Corp., Philadelphia, Pa.

Duck, Cotton

Aldora Mills, Thomaston, Ga.
Alexander City Cotton Mills, Alexander City, Ala.
Anchor Duck Mills, Rome, Ga.
Aragon Mills, Aragon, Ga.
Barrell, W. L., Co. of New York, New York, N. Y.
Bliss, Fabyan & Co., New York, N. Y.
Bott Mills, Lowell, Mass.
Boyle, John, & Co., Inc., New York, N. Y.
Brandon Corp., Greenville, S. C.
Brazoe Valley Cotton Mills, West, Tex.
Brookside Mills, Knoxville, Tenn.
California Cotton Mills, Oakland, Calif.
Callaway Mills, Inc., New York, N. Y.
Columbia Mills, Columbia, S. C.
Corsicana Cotton Mills, Corsicana, Tex.
Crown Cotton Mills, Dalton, Ga.
Dallas Cotton Mills, Dallas, Tex.
Denison Cotton Mills, Denison, Tex.
Dixie Cotton Mills, La Grange, Ga.
Dunson Mills, Dunson, Ga.
Equinox Mills, Anderson, S. C.
Falls Co., Winchendon, Mass.
Fitchburg Cotton Mills, Fitchburg, Mass.
Fitzgerald Cotton Mills, Fitzgerald, Ga.
Fulton Bag & Cotton Mills, Atlanta, Ga.
Gary, James S., & Son, Baltimore, Md.
Gonzales Cotton Mill Co., Gonzales, Tex.
Guadalupe Valley Cotton Mills, Cuero, Tex.
Handley, W. A., Mfg. Co., Roanoke, Ala.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hillsboro Cotton Mill, Hillsboro, Tex.
Hooper, Wm. E., & Sons Co., Baltimore, Md.
Itasca Cotton Mfg. Co., Itasca, Texas.
Lawrence Duck Co., Lawrence, Mass.
McCampbell & Company, New York, N. Y.
Mareboro Cotton Mills, McColl, S. C.
Mexia Textile Mills, Inc., Mexia, Tex.
Monticello Cotton Mills Co., Monticello, Ark.
Mt. Vernon Mills, Baltimore, Md.
Mt. Vernon-Woodberry Mills, Inc., Baltimore, Md.
Otis Co., Three Rivers, Mass.
Palmetto Cotton Mills, Palmetto, Ga.
Sherman Mfg. Co., Sherman, Tex.
Turner Halsey & Co., New York, N. Y.
Tallassee Mills, Tallassee, Ala.
Thomaston Cotton Mills, Thomaston, Ga.
Waxahachie Cotton Mills, Waxahachie, Tex.
Wellington, Sears Co., New York, N. Y.
West Point Mfg. Co., West Point, Ga.
Willingham Cotton Mills, Macon, Ga.

Duck, Waterproof

Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Safety Equipment Service Co., Cleveland
Upson-Walton Co., The, Cleveland, Ohio.

Dusters—Bench, Counter, Feather, Painters'

Osborn Mfg. Co., The, Cleveland, Ohio.

Dynamometers

Diehl Mfg. Co., Elizabethport, N. J.
General Electric Co., Schenectady, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.

Edgers, Metal Working

DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.

Edgers, Side

Bernz, Otto, Co., Inc., Rochester, N. Y.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Farquhar, A. B., Co., Ltd., York, Pa.

Edgers, Woodworking

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Corley Manufacturing Co., Chattanooga, Tenn.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Diamond Iron Works, Inc., Minneapolis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hermance Machine Co., Williamsport, Pa.
Lane Mfg. Co., Montpelier, Vt.
Mattison Machine Works, Rockford, Ill.
Memphis Machine Works, Memphis, Tenn.
Miller Machine Works, Springs, Pa.
Titeflex Metal Hose Corp., Newark, N. J.
United States Machine Co., Williamsport, Pa.

Edges, Straight

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry & Sons, Inc., Tacony, Philadelphia, Pa. (Saw makers)
Jaeger Machine Co., The, Columbus, Ohio.
Mattison Machine Works, Rockford, Ill.

Ejectors

American Injector Co., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hennebohle, Frank, Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Penberthy Injector Co., Detroit, Mich.
Randle Machinery Co., The, Cincinnati, O.
Schutte & Koerting Co., Philadelphia, Pa.
Tranter Mfg. Co., Pittsburgh, Pa.
Watson & McDaniel Co., Philadelphia, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Ejectors, Acid

American Injector Co., Detroit, Mich.
Hennebohle, Frank, Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Penberthy Injector Co., Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.

Ejectors, Sewage

American Injector Co., Detroit, Mich.
Economy Pumping Machinery Co., Chicago.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hennebohle, Frank, Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Yeomans Brothers Co., Chicago, Ill.

Elbows, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Atlas Brass Foundry, Los Angeles, Calif.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.

Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago.
Kennedy Valve Mfg. Co., The, Elmira, N.Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Messmer Brass Co., St. Louis, Mo.
M & H Valve & Fittings Co., Anniston, Ala.
New York Brass Foundry Co., New York.
Nugent, Wm. W., & Co., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O. (For tube)
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tube-Turns, Inc., Louisville, Ky.
Williams, D. T., Valve Co., The, Cincinnati.

Elbows, Pipe, Cast Iron

American Radiator Co., New York, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Frederick Iron & Steel Co., The, Frederick, Md.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Murray, D. J., Mfg. Co., Wausau, Wis.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Shaw-Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Elbows, Pipe, Malleable Iron

Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Elbows, Pipe, Steel

American Rolling Mill Co., The, Middletown, Ohio.
Central Forging Co., The, Catawissa, Pa.
Crane Co., Chicago, Ill. (Cast and forged)
Kerotest Manufacturing Co., Pittsburgh, Pa. (Forged)
Lyon, Conklin & Co., Inc., Baltimore, Md.
Malleable Iron Fittings Co., Branford, Conn.
Midwest Piping & Supply Co., St. Louis.
Mitchell, W. K., & Co., Inc., Philadelphia.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
South Chester Tube Co., Chester, Pa.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky. (Forged)
Walworth Co., New York, N. Y. (Cast and forged)
Watson-Stillman Co., The, Roselle, N. J.

Elbows, Street

Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N.Y.
Malleable Iron Fittings Co., Branford, Conn.
M & H Valve & Fittings Co., Anniston, Ala.

PAGE

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Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Elbows, Union

Acheson Manufacturing Co., Rankin, Pa.
American Radiator Co., New York, N. Y.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
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Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Milwaukee Valve Co., Milwaukee, Wis.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Electrodes, Welding

Air Reduction Sales Co., New York, N. Y.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Ampco Metal, Inc., Milwaukee, Wis.
Arcos, Inc., Philadelphia, Pa.
Bastian-Blessing Co., Chicago, Ill.
Crucible Steel Co. of America, New York.
General Electric Co., Schenectady, N. Y.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Lincoln Electric Co., The, Cleveland, Ohio.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Sight Feed Generator Co., Richmond, Ind.
Speer Carbon Co., St. Marys, Pa.
Sutorbilt Corporation, Los Angeles, Calif.
Torchweld Equipment Co., Chicago, Ill.

Elevators, Barrel

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Barrett-Cravens Co., Chicago, Ill.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Fairfield Engineering Co., Marion, Ohio.
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Barrett-Cravens Co., Chicago, Ill.
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Lewis-Shepard Co., Boston, Mass.
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Moffatt Machinery Mfg. Co., Charlotte, N. C.
Pyott Foundry & Machine Co., Chicago, Ill.
Revolvator Co., North Bergen, N. J.
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Link-Belt Co., Chicago, Ill.
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Minnich Machine Works, Landisville, Pa.
Newhall Chain Forge & Iron Co., New York.
O. K. Clutch & Machinery Co., Columbia, Pa. (Portable contractors' elevators)
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Revolvator Co., North Bergen, N. J.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Eliminators, Oil

(See "Oil Eliminators")

Emery and Other Abrasives

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
American Emery & Stone Co., New York, N. Y.
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Behr-Manning Corp., Troy, N. Y.
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Dallett Co., The, Philadelphia, Pa.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Harrison & Co., Haverhill, Mass.
Keystone Emery Mills, Philadelphia, Pa.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Norton Co., Worcester, Mass.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Pittsburgh Crushed Steel Co., Pittsburgh, Pa. (Sandblast abrasives).
Walls Sales Corp., New York, N. Y.
Waltham Grinding Wheel Co., Waltham, Mass.
Wausau Abrasives Co., St. Paul, Minn.

End Mills

(See "Mills, End")

Ends, Bolt

Bethlehem Steel Co., Bethlehem, Pa.
Clark Bros. Bolt Co., Milldale, Conn.
Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Ends, Hose

Acheson Manufacturing Co., Rankin, Pa.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Electric Hose & Rubber Co., Wilmington, Del.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Independent Pneumatic Tool Co., Chicago.
Kelly Machinery Co., Chicago, Ill.
Mulconroy Company, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.

Ends, Rod and Yoke

Acme Machine Products Co., Muncie, Ind.
Billings & Spencer Co., The, Hartford, Conn.
Buckeye Forging Co., The, Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Engines, Diesel

American M.A.N. Corp., New York, N. Y.
American Diesel Engine Co., Oakland, Cal.
Anderson Engine & Foundry Co., Anderson, Ind.
Atlas-Imperial Diesel Engine Co., Oakland, Calif.
Bronander Diesel Engine Co., North Arlington, N. J.
Broomfield Mfg. Co., Inc., Boston, Mass.
Buckeye Machine Co., Lima, Ohio.
Buda Company, The, Harvey, Ill.
Caterpillar Tractor Co., Peoria, Ill.
Chicago Pneumatic Tool Co., New York.
Cooper-Bessemer Corp., Mt. Vernon, Ohio.
Cummins Engine Co., Columbus, Ind.
Deutz Motor Corp., New York, N. Y.
F.A.B. Manufacturing Co., Oakland, Calif.
Fairbanks, Morse & Co., Chicago, Ill.
Hill-Diesel Engine Co., Lansing, Mich.
Ingersoll-Rand Co., New York, N. Y.
Johnson Manufacturing Co., Seattle, Wash.
Kahlenberg Bros., Two Rivers, Wis.
Markey Machinery Co., Inc., Seattle, Wash.
Mason Diesel Engine Co., Los Angeles, Cal.
National Superior Co., Springfield, Ohio.
Otto Engine Works, Holmesburg, Philadelphia, Pa.
Power Manufacturing Co., Marion, Ohio.
Reid, Joseph, Gas Engine Co., Oil City, Pa.
Stover Mfg. & Engine Co., Freeport, Ill.
Union Diesel Engine Co., Oakland, Calif.
Venn Severin Machine Co., Chicago, Ill.
Weber Engine Co., Kansas City, Mo.
Winton Engine Corp., Cleveland, Ohio.
Witte Engine Works, Kansas City, Mo.
Wolverine Motor Works, Inc., Bridgeport, Conn.
Worthington Pump & Machinery Corp., Harrison, N. J.

Engines, Fire, Chemical

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston.
Boyer Fire Apparatus Co., Logansport, Ind. (On wheels)
Buffalo Fire Appliance Corp., Buffalo, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Garrison Engineering Corp., Great Barrington, Mass.
Harker Mfg. Co., Cincinnati, Ohio.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Engines, Fire, Hand

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston.
Buffalo Fire Appliance Corp., Buffalo, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Garrison Engineering Corp., Great Barrington, Mass.
Harker Mfg. Co., Cincinnati, Ohio.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Engines, Hoisting, Gasoline

American Hoist & Derrick Co., St. Paul.
Dake Engine Co., Grand Haven, Mich.
Loane Engineering Co., Baltimore, Md.
Orr & Sembower, Inc., Reading, Pa.

Engines, Hoisting, Steam

American Hoist & Derrick Co., St. Paul.
Dake Engine Co., Grand Haven, Mich.
Farquhar, A. B., Co., Ltd., York, Pa.
Miller Machine Works, Springs, Pa.
Orr & Sembower, Inc., Reading, Pa.

Engines, Hydraulic

(See "Rams, Hydraulic")

Engines, Oil Well Drilling

Fairbanks, Morse & Co., Chicago, Ill.

Engines, Pumping

(See "Pumps, Engine")

Engines or Motors, Stationary — Gas, Gasoline, Kerosene and Oil

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul.
Barrett-Cravens Co., Chicago, Ill.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Binks Manufacturing Co., Chicago, Ill.
Briggs & Stratton Corp., Milwaukee, Wis.
Chicago Pneumatic Tool Co., New York.
Fairbanks, Morse & Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Loane Engineering Co., Baltimore, Md.
Machine Shop Equipment Co., Grove City, Pa.
Micro-Westco, Inc., Bettendorf, Iowa. (Oil)
Miller Improved Gas Engine Co., Springfield, Ohio.
Nelson Bros. Co., Saginaw, Mich. (Gasoline and kerosene)
Power Manufacturing Co., The, Marion, O.
Union Diesel Engine Co., Oakland, Calif.
Worthington Pump and Machinery Corp., Harrison, N. J.

Equipment, First Aid

(See "Cabinets and Equipment, First Aid")

Equipment, Painting and Whitewashing

(See "Machines and Equipment, Painting and Whitewashing")

Excavators, Gravel, Drag Line

American Hoist & Derrick Co., St. Paul.
Conco Engineering Works, Mendota, Ill.
Godfrey Conveyor Co., Elkhart, Ind.
Link-Belt Co., Chicago, Ill.
Marion Steam Shovel Co., The, Marion, O.

Exhausters, Gas

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Coppus Engineering Corp., Worcester, Mass.
De Laval Steam Turbine Co., Trenton, N. J.
Farquhar, A. B., Co., Ltd., York, Pa.
Federal Products Corp., Providence, R. I.
Garden City Fan Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Roots-Connersville Blower Corp., Connersville, Ind.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.
Sutorbilt Corporation, Los Angeles, Calif.

Exhausters, Shavings and Dust

(See "Collectors, Exhausters [or Blower Systems] for Shavings and Dust")

Expanders, Coupling, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Federal Products Corp., Providence, R. I.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Safety Fire Extinguisher Co., The, New York, N. Y.

Expanders, Flue and Tube

Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y.
Henderer's, A. L., Sons, Wilmington, Del.

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Key Co., East St. Louis, Ill.
Plomb Tool Co., Los Angeles, Calif.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Tool Division, Chicago.

Explosives

Hercules Powder Co., Inc., Wilmington, Del.

Extensions, Bit

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.

Extensions, Drill

Farquhar, A. B., Co., Ltd., York, Pa.
Scully-Jones & Co., Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Extensions, Tap

Allen Mfg. Co., The, Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.

Extinguishers, Fire

Allen, W. D., Mfg. Co., Chicago, Ill.
American-La France and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston, Mass.
Buffalo Fire Appliance Corp., Buffalo, N. Y.
C-O-Two Fire Equipment Co., Newark, N. J.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Chapin, R. E., Co., The, Batavia, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Garrison Engineering Corp., Great Barrington, Mass.
Giant Mfg. Co., Council Bluffs, Iowa.
Goodall Rubber Co., Philadelphia, Pa.
Harker Mfg. Co., Cincinnati, Ohio.
Jiffy Fire Hose Rack Co., New York, N. Y.
Kidde, Walter, & Co., Inc., Bloomfield, N. J.
Knight & Thomas, Inc., Boston, Mass.
Merchant & Evans Co., Philadelphia, Pa.
Miller Peerless Manufacturing Co., Chicago, Ill.
Phoenix Fire Extinguisher Co., Norwich, Conn.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Equipment Service Co., The, Cleveland, Ohio.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wil-X-Mfg. Corp., Brooklyn, N. Y.

Extinguisher, Fire, Liquid

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston, Mass.
Buffalo Fire Appliance Corp., Buffalo, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Harker Mfg. Co., Cincinnati, Ohio.
Kidde, Walter, & Co., Inc., Bloomfield, N. J.
Knight & Thomas, Inc., Boston, Mass
Merchant & Evans Co., Philadelphia, Pa.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., New York.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wil-X-Mfg. Corp., Brooklyn, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Extractor, Lamp Base

Schollhorn, Wm., Co., The, New Haven, Conn.

Extractors, Bushing

(See "Removers, Bushing")

Extractors, Cotter Pin

American Swiss File & Tool Co., Elizabeth, N. J.
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Milwaukee Steam Appliance Co., West Allis, Wis.
Rose, Frank, Mfg. Co., Hastings, Neb.
Schutte & Koerting Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Extractors—Rivet, Bolt, Screw and Tap

Bristol Co., The, Waterbury, Conn.
Cleveland Twist Drill Co., The, Cleveland.
Crescent Belt Fastener Co., New York.
Greenfield Tap & Die Corp., Greenfield, Mass.
Jay Tee Tool Sales Co., Cleveland, Ohio.
Manufacturers' Belt Hook Co., Chicago.
Plomb Tool Co., Los Angeles, Calif.
Standard Belt Fastener Co., The, Unionville, Conn.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, New Britain, Conn.

Eyelets, Terminal, and Tools

Schollhorn, Wm., Co., The, New Haven, Conn.

Facers, Spot

Alvord-Polk Tool Co., Millersburg, Pa.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Facings, Clutch

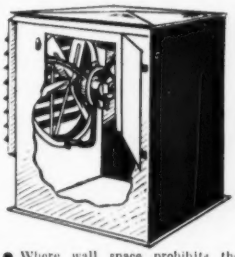
Asbestos Mfg. Co., Huntington, Ind.
Atkins, E. C., and Co., Indianapolis, Ind.
Burrell Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago. (Leather)
Couse & Bolten, Inc., Newark, N. J.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Southern Friction Materials Co., Charlotte, N. C.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Facings, Foundry

Dixon, Joseph, Crucible Co., Jersey City.
Globe Steel Abrasive Co., The, Mansfield, Ohio.
Pittsburgh Crushed Steel Co., Pittsburgh.
Superior Flake Graphite Co., Chicago, Ill.
United States Graphite Co., The, Saginaw, Mich.

Fans, Electric

American Blower Corp., Detroit, Mich.
Autovent Fan & Blower Co., Chicago, Ill.
Barber-Colman Co., Rockford, Ill.
Bishop & Babcock Sales Co., Cleveland.
Buffalo Forge Co., Buffalo, N. Y.
Century Electric Co., St. Louis, Mo. (Portable ceiling ventilating fans)



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Emerson Electric Mfg. Co., The, St. Louis.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Ilg Electric Ventilating Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Marathon Electric Manufacturing Corp., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Meier Electric & Machine Co., The Indianapolis, Ind.
National Fan & Blower Corp., Chicago, Ill.
Propellair, Inc., Springfield, Ohio.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Ruemelin Mfg. Co., Milwaukee, Wis.
Signal Electric Mfg. Co., Menominee, Mich.
Simplex Spray Equipment Co., Chicago, Ill.
Sturtevant, B. F., Co., Boston, Mass.
Victor Electric Products, Inc., Cincinnati.
Wagner Electric Corp., St. Louis, Mo.

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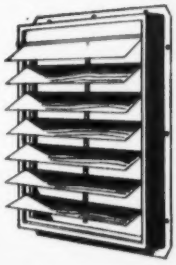

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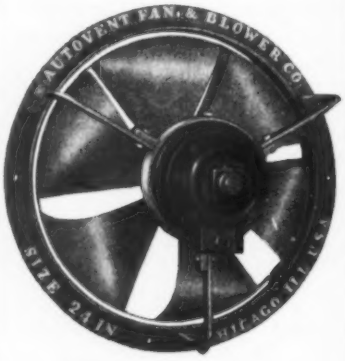
1807-23 N. Kostner Ave., Chicago, Illinois

AUTOVENT "31" Series PROPELLER FANS

• An exclusive Autovent designed unit which will not churn air or overload the motor. Especially recommended for economical ventilation, where greatest volume of air delivery is required at lowest cost. Ruggedly constructed for indefinite operation under severe conditions. Capacities from 500 to 38,000 CFM. Write for bulletin No. 200.



"BW" (Bucket Wheel) PROPELLER FANS

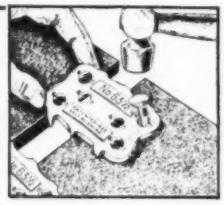
• Wherever a ventilating problem requires a slow speed operating fan, the "BW" (Bucket Wheel) Fan is recommended. It provides efficient ventilation for unlimited uses. Handles from 500 to 40,000 CFM. Sturdily constructed, consumes minimum power and is available at low quiet operating speeds. Write for bulletin No. 202.

AUTOVENT FAN & BLOWER CO.
1807-23 N. Kostner Ave., Chicago, Illinois

Fans, Exhaust

American Blower Corp., Detroit, Mich.
Autovent Fan & Blower Co., Chicago, Ill.
Bendix Products Corporation, South Bend, Ind.
Binks Manufacturing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burt Manufacturing Co., The, Akron, O.
Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Coppus Engineering Corp., Worcester, Mass.
Dallett Co., The, Philadelphia, Pa.
DeVilbiss Co., The, Toledo, Ohio.
Diehl Mfg. Co., Elizabethport, N. J.
Emerson Electric Mfg. Co., The, St. Louis.
Garden City Fan Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hartzell Propeller Fan Co., Piqua, Ohio.
Ilg Electric Ventilating Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Marathon Electric Manufacturing Corp., Wausau, Wis.
Mott Sand Blast Mfg. Co., Inc., Chicago.
National Fan & Blower Corp., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Propellair, Inc., Springfield, Ohio.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Ruemelin Mfg. Co., Milwaukee, Wis.
Signal Electric Mfg. Co., Menominee, Mich.
Simplex Spray Equipment Co., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corporation, Los Angeles, Calif.
Victor Electric Products, Inc., Cincinnati.
Wagner Electric Corp., St. Louis, Mo.

Standard Self-Aligning **Belt Fasteners**



Insure Correct Application of Both Plates and Rivets — Rust Proof

Endorsed by Belt Makers

The Standard Belt Fastener Co.
Unionville, Conn.
Manufacturers of
STANDARD MALLEABLE BELT FASTENERS
STANDARD STEEL BELT FASTENERS
STANDARD BELT RIVETS & EXTRACTORS

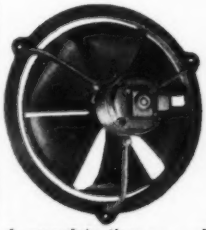
Fasteners and Hooks, Belt

Armstrong-Bray & Co., Chicago, Ill.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown, D. P., & Co., Philadelphia, Pa.
Capen Belting & Rubber Co., St. Louis.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Couse & Bolton, Inc., Newark, N. J.
Crescent Belt Fastener Co., New York.

Smith's Patent BELT FASTENERS

Make the Joint the Strongest Part of the Belt.

H. D. EDWARDS & CO.
Detroit, Mich.



BUCKET BLADE VENT *fan*

A complete line . . . . bucket and flat blade type fans for A.C. or D.C. . . . automatic shutters, switches and kitchen fans, adjustable or built-in models.

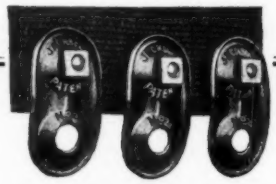
SIGNAL ELECTRIC MFG. CO.
Menominee, Michigan, U.S.A.

SIGNAL — MANUFACTURERS OF ELECTRICAL PRODUCTS

Detroit Belt Lacer Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Edwards, H. D., & Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Jackson, Isaac, Belt Fastener Co., Inc., New York, N. Y.
Jewell Belt Hook Co., Naugatuck, Conn.
Johnson Belting Co., New York, N. Y.
Jones, H. H., Lancaster, N. H.
Manufacturers' Belt Hook Co., Chicago.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
R. & J. Dick Co., Inc., Passaic, N. J.
Rahmann, Geo., & Co., New York, N. Y.
Republic Steel Corp., Cleveland, Ohio.
Russell Mfg. Co., Middletown, Conn.
Safety Belt-Lacer Co., Toledo, Ohio.
Schieren, Chas. A., Co., New York, N. Y.
Smith, F. P., & Co., Sharon Hill, Pa.
Standard Belt Fastener Co., The, Unionville, Conn.
Stow, H. J. (Successor to Kenehan Steel Belt Fastener Co.), Chicago, Ill.
Talcott, W. O. & M. W., Inc., Providence.
Victor Balata & Textile Belting Co., New York, N. Y.
Washburn Co., The, Worcester, Mass.
Webb, J. A., Belting Co., Inc., Buffalo.

The Genuine
JACKSON Belt Fastener

JACKSON'S Belt Fasteners have been in use over 25 years on every kind and all sizes of belting. They are acknowledged the best and strongest fastener for heavy duty transmission and conveying belts. Write for catalog and information.



SIZES

Size of Plate	For Use on Belts
No. 0	1½ to 2 inch wide
No. 1 small	2½ to 4 " "
No. 1 large	5 and 6 " "
No. 2 small	7 to 9 " "
No. 2 large	7 to 9 " "
No. 3	10 to 16 " "
No. 4	18 to 24 " "
No. 5	Above 24 " "

ISAAC JACKSON
BELT FASTENER CO.
18 Vesey St., - - - New York, N. Y.

Faucets

(For faucets not included in the following classifications, see "Cocks and Faucets")

Chase Brass & Copper Co., Waterbury, Conn.
Molded Specialties Co., Cleveland, Ohio.

Faucets and Cocks, Barrel

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Perkes, Charles, Co., Philadelphia, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tessmer Machine & Tool Co., Detroit.
Walworth Co., New York, N. Y.

SHERMAN
BARREL FAUCETS
Solid Brass Handles
THEFT-PROOF — EASILY OPERATED
LONG WEARING — WILL NOT LEAK
FULL FLOW
Sold by Jobbers
H. B. SHERMAN MFG. CO.
Battle Creek, Mich.

Faucets, Petroleum

Haydenville Co., The, Haydenville, Mass.
Imperial Brass Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Sargent & Co., New Haven, Conn.

Faucets, Radiator Filling, Self-Closing

American Injector Co., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Molded Specialties Co., Cleveland, Ohio.
Morrison Bros., Dubuque, Iowa.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Feeders, Boiler Compound

Fisher Governor Co., The, Marshalltown, Iowa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Feeders, Boiler Oil

General Brass Co., Detroit, Mich.

Feeders, Boiler Water

American Injector Co., Detroit, Mich.
Burrows, F. A., Co., York, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
Gardner-Denver Co., Quincy, Ill.
Kieley & Mueller, Inc., New York, N. Y.
McDonnell & Miller, Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Strong, Carlisle & Hammond, Cleveland.
Worthington Pump and Machinery Corp., Harrison, N. J.
Wright-Austin Co., Detroit, Mich.

Feeders, Furnace

Jeffrey Mfg. Co., The, Columbus, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

IMPERIAL
SETTE FAUCET
For steel drums, barrels, etc. Easy to operate; closes automatically. Has metal-to-metal seat which withstands repeated use without leaking. No washers to wear out. Can be locked open or closed.

Holds oil, naphtha, gasoline, thinners, solvents, light varnishes, clear lacquers, etc. ¾" pipe thread. List, each, $1.00.
Excellent distributor terms.
The IMPERIAL BRASS MFG. CO.
511 S. Racine Ave. Chicago, Ill.

Feeders, Graphite Lubricant

Essex Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.

Feeds, Punch Press, Automatic

Federal Press Co., Elkhart, Ind.
U. S. Tool Company, Inc., Ampere, N. J.
Wittek Mfg. Co., Chicago, Ill.

Feeds, Sawmill Carriage

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Corley Manufacturing Co., Chattanooga, Tenn.

Felt, Asphalt

Armstrong Cork Products Co., Lancaster, Pa.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Johns-Manville, New York.
National Asbestos Mfg. Co., The, Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Ruberoid Co., The, New York, N. Y.

Felt, Building

Armstrong Cork Products Co., Lancaster, Pa.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Johns-Manville, New York.
National Asbestos Mfg. Co., The, Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Felt, Hair

Booth Felt Co., Inc., Brooklyn, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Johns-Manville, New York.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ruberoid Co., The, New York, N. Y.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Felt, Slaters'

Armstrong Cork Products Co., Lancaster, Pa.
Barber Asphalt Co., The, Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.

Felt, Tarred

Armstrong Cork Products Co., Lancaster, Pa.
Barrett Co., The, New York, N. Y.
Barber Asphalt Co., The, Philadelphia, Pa.
Johns-Manville, New York.
Ruberoid Co., The, New York, N. Y.

Felt, Wool

Booth Felt Co., Inc., Brooklyn, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Johns-Manville, New York.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.

Felt Goods, Mechanical

Armstrong Cork Products Co., Lancaster, Pa.
Auburn Manufacturing Co., The, Hartford.
Booth Felt Co., Inc., Brooklyn, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Felt Products Mfg. Co., Chicago, Ill.
Gross Rubber Co., Sharon, Pa.

Fence, Wire

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Wire Works Co., Inc., Buffalo.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Cyclone Fence Co., Waukegan, Ill.
Page Steel and Wire Division, American Chain Co., Inc., Monessen, Pa.

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AUTOMATIC
Roll Feeds
FOR PUNCH PRESSES
FAST—ACCURATE
AUTOMATIC
Will feed from 0" to 24" or more per stroke. Made in single or double roll for every size or make of punch press.
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Reel Stands
for coil stock are made in five types with either plain or ball bearings.
Write for Bulletin MD
4302 W. 24TH PL. WITTEK
CHICAGO, ILL. MFG. CO.

Sheffield Steel Corp., Kansas City, Mo.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Spencer Steel Co., New York (chain link).

Ferrules, Brass

American Foundry & Mfg. Co., St. Louis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Atlas Brass Foundry, Los Angeles, Calif.
Atlas Tack Corp., Fairhaven, Mass.
Bay State Stamping Co., Worcester, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Crescent Belt Fastener Co., New York.
Everitt Co., The, Boston, Mass.
Farnan Brass Works Co., The, Cleveland.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Midland Mfg. Co., Ft. Worth, Tex.
Mueller Co., Decatur, Ill.
Murray, D. J., Mfg. Co., Wausau, Wis.
Nunn Brass Works, Rochester, N. Y.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Victor Mfg. & Gasket Co., Chicago.

Ferrules, Combination Lead and Iron

Alpha Metal & Rolling Mills, Brooklyn.
Hays Manufacturing Co., Erie, Pa.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Nunn Brass Works, Rochester, N. Y.

Ferrules, Condenser

Chase Brass & Copper Co., Waterbury, Conn.
Everitt Co., The, Boston, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
National Copper & Smelting Co., Cleveland, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Scovill Mfg. Co., Waterbury, Conn.
Torrington Mfg. Co., The, Torrington, Conn.

OUR PARTNERS

Not our Customers

AS partners in distributorship not simply as manufacturer and customer is the relationship maintained between The Cleveland File Company and its distributors.

This partnership recognizes that if you are to make money selling files you must have a line that is exclusively yours in a protected territory.

Partners, also in that once the franchise is made "Cleveland" immediately goes to work with you to assure your making profits on SUPER-DUTY FILES—and continues this cooperation.

Note the five points of "Cleveland's" Merchandising Policy as listed below. Surely they fit into your idea of the proper and profitable partnership relation between Distributor and Manufacturer.

1 Sales—thru Exclusive Franchise

2 Resale—thru Strictly maintained resale schedules

3 Factory Cooperation—thru definite, systematic factory helps

4 Consumer Advertising—Concentrated in distributor market

5 Quality Products—Highest standards constantly maintained

3400 Hamilton Ave. Cleveland, Ohio

QUALITY FILES SINCE 1899

Ferrules, Copper, Boiler and Heater Tube

Bay State Stamping Co., Worcester, Mass.
National Copper & Smelting Co., Cleveland, Ohio.
Nunn Brass Works, Rochester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Victor Manufacturing & Gasket Co., Chicago, Ill.

Ferrules, Drive, Iron

American Foundry & Mfg. Co., St. Louis.
Illinois Malleable Iron Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Swett, A. L., Iron Works, Medina, N. Y.

Ferrules, Hose

Chicago Tubing & Braiding Co., Chicago.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Rubber Co., Inc., The, Akron, O.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Ferrules, Lead

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Eagle-Picher Lead Co., The, Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Prier Brass Mfg. Co., Kansas City, Mo.

Ferrules, Trap Screw

American Foundry & Mfg. Co., St. Louis.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
National Lead Co., New York, N. Y.
Newbury Manufacturing Co., Monroe, N.Y.
Nunn Brass Works, Rochester, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Swett, A. L., Iron Works, Medina, N. Y.

Ferrules, Union

Kupferle, John C., Foundry Co., St. Louis.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Nunn Brass Works, Rochester, N. Y.
Swett, A. L., Iron Works, Medina, N. Y.

Ferrules, Vent and Cleanout

American Foundry & Mfg. Co., St. Louis.
Chase Brass & Copper Co., Waterbury, Conn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Prier Brass Mfg. Co., Kansas City, Mo.

Fibre, Hard—Sheets, Tubes, Rods, Pipe, Etc.

Continental-Diamond Fibre Co., Newark, Del.
General Electric Co., Schenectady, N. Y.
Johns-Manville, New York.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.

Filers, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Delta File Works, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Foley Manufacturing Co., Minneapolis.
Hayes File Co., Detroit, Mich.
Heller Bros. Co., Newark, N. J.
Hoe, R., & Co., Inc., Bronx, New York.
Sandvik Saw & Tool Corp., Minneapolis.

Files, Hand

American Emery & Stone Co., New York, N. Y.
American Swiss File & Tool Co., Elizabeth, N. J.

(Continued on page 146)

Distributors—

All your salesmen will benefit from reading every issue of

Mill Supplies

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our very interesting Group Subscription Plan for distributors' Salesmen.

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"WAVY TEETH" FILES

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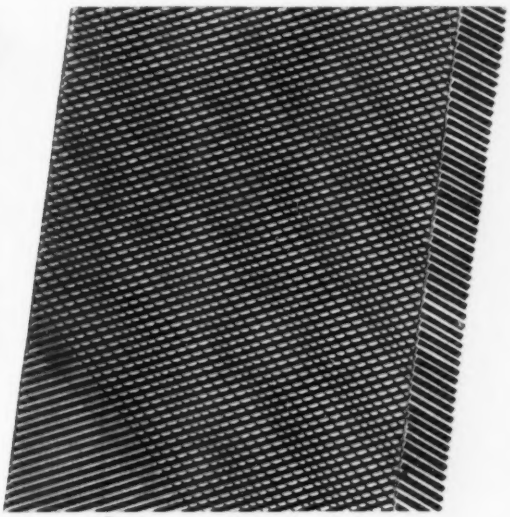

Quality and Service backed by 100 Years of Experience

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1 Remove more metal
2 Leave a smoother finish
3 Last much longer
4 Clear themselves quickly

In addition, we also manufacture a complete line of

VIXEN and SWISS PATTERN FILES

HELLER BROTHERS COMPANY

GOOD TOOLS SINCE 1836

General Offices, Newark, N. J.• Plants at Newark, N. J., and Newcomerstown, Ohio

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Since 1870

AMERICAN SWISS PATTERN

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ROTARY AND SPECIAL FILES

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Hayes Quality Files are available in sizes ranging from the smallest type of Swiss Pattern Files to the largest of regular Files. In addition, special cuts, shapes and sizes will be manufactured to suit individual requirements of your customers.

Hayes Quality Files have been manufactured for 67 years. They possess a well merited reputation for satisfactory performance. Recommend them to your customers. You can depend on them absolutely.

Send us your orders for standard shapes and cuts and for special requirements. Prompt service assured.

Further information at your request.

HAYES FILE COMPANY

1981-87 Franklin Street
Detroit, Michigan

Files, Hand

(Continued from page 144)

Atkins, E. C., and Co., Indianapolis, Ind.
Carson-Newton Co., Newark, N. J.
Cleveland File Co., The, Cleveland, Ohio.
Delta File Works, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Grobet File Corp. of America, New York.
Hayes File Co., Detroit, Mich.

(Continued on page 147)

SALES HELP

The extent to which the seeds of creative selling blossom into bumper crops of profitable orders depends largely upon scientific cultivation.

The distributor's salesman working alone — no matter how capable—cannot accomplish the goal of creative selling. He must have the backing of the inside men in his own organization and of his executives, plus intelligent cooperation from the manufacturers whose lines he sells.

Mill Supplies is published to help the entire distributing organization—from cub salesman and counter man to top executive—work together to reap a bumper crop of sales. The messages in its advertising pages are fully as important as its editorial content, because they represent the manufacturer's cooperation toward the common goal of increased business.

Sound sales management dictates that every one in the distributor's organization should get a copy of **Mill Supplies** every month. Group rates make the unit cost extremely low. Write for complete information, today..

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MILL SUPPLIES

The Magazine for Distributors and Their Salesmen,

330 West 42nd St.,
New York, N. Y.

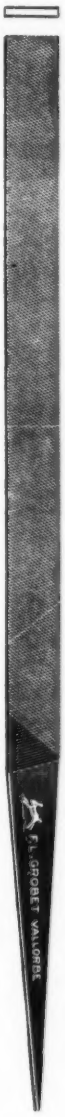
GROBET

GENUINE

Swiss

FILES

Unequalled *for* Service that spells *Sales*



GROBET FILES are well known! Over 100 years of experience and research are in back of Grobet files. They are sold by more than 200 distributors.

GROBET QUALITY is well known! "Grobet" means precision files of high cutting speed, indispensable for accurate filing.

The GROBET Line is complete! Grobet Swiss files are made in nine numbers of cut—Nos. 00, 0, 1, 2, 3, 4, 5, 6, 8: No. 00 corresponds to bastard cut;—Nos. 0-1 to second cut; No. 2 to smooth cut; Nos. 3-4 to super smooth cut. Altogether, there are over 4,800 different shapes, sizes, and cuts. The line includes also specialties such as GROBET Rifflers, Grobet Machine Files for Hartford, Illinois, LaPorte, Cochrane-Bly, Oliver, Thiel, and Harvey Filing Machines; Grobet Rotary Files; and Grobet Curved Files.

•

Write for latest Catalog B

GROBET FILE CORP. OF AMERICA

3 Park Place,
New York City, N. Y.

Files, Hand

(Continued from page 146)

Heller Brothers Co., Newark, N. J.
Hoe, R., & Co., Inc., Bronx, New York.
Nicholson File Co., Providence, R. I.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Wave Cut File & Tool Corp., New York.

Files—Magneto, Coil, Spark Plug or Commutator

American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Carson-Newton Co., Newark, N. J.
Cleveland File Co., The, Cleveland, Ohio.
Delta File Works, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

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CARSON NEWTON

ALLIGATOR *BRAND*

FILES

A complete line of Swiss and American patterns in all sizes, shapes and cuts to fill every filing need.

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Their 25 years of service in industry throughout the most discriminating manufacturing plants, is conclusive proof of their quality.

AMERICAN PATTERN

In Two Grades

1st—"Du-more" (Red Label)
The highest grade commercial pattern file.

2nd—"Kleen-Kut" (Blue Label)
A first quality grade commercial pattern file.

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The Alligator Trade Mark on a File is your guarantee that it has passed the highest test as to shape, cutting quality and uniform hardness and is perfect in every respect.

"As the Alligator Bites, so does a Carson-Newton File"

CARSON NEWTON COMPANY

21-23 PROSPECT ST. NEWARK, N. J.

American Swiss

TRADE MARK OF QUALITY and SERVICE

TRADE ONLY THE BEST ARE GOOD ENOUGH MARK

MADE IN AMERICA

Files of Precision

Swiss Pattern File users look for this mark on tang of file when selecting their file requirements.

They are the only type of file we manufacture—more than 2000 different cuts and sizes to choose from.

KNURLED HANDLE NEEDLE FILES

There is an American Swiss file to fit the most intricate filing job.

RIFFLER

Every file rigidly inspected for shape, cut, size and hardness and guaranteed for performance.

Specials made to order.

Repeat orders and satisfied customers are assured for the distributors because of their satisfactory performance and 100% Distributor Sales Policy behind them.

AMERICAN SWISS FILE & TOOL CO.

400-416 TRUMBULL STREET, ELIZABETH, N. J.

Also Manufacturers of Mechanics' Hand Tools and Knurls

★✚★ STARS & CROSS BRAND ★✚★

Grobet File Corp. of America, New York.
Hayes File Co., Detroit, Mich.
Heller Brothers Co., Newark, N. J.
Ideal Commutator Dresser Co., Sycamore, Ill. (commutator).
Nicholson File Co., Providence, R. I.
Sandvik Saw & Tool Corp., Minneapolis.
Stevens, Walden, Inc., Worcester, Mass.
Wave Cut File & Tool Corp., New York.

Files, Rotary

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ford, M. A., Mfg. Co., Davenport, Iowa.
Grobet File Corp. of America, New York.
Hayes File Co., Detroit, Mich.
Hergi Mfg. Co., The, Bridgeport, Conn.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Pratt & Whitney Co., Hartford, Conn.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Wave Cut File & Tool Corp., New York.

Files, Swiss Pattern

American Swiss File & Tool Co., Elizabeth, N. J.
Carson-Newton Co., Newark, N. J.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Grobet File Corp. of America, New York.
Hayes File Co., Detroit, Mich.
Heller Bros. Co., Newark, N. J.
Nicholson File Co., Providence, R. I.

Filing Machines, Die

(See "Machines, Die Filing and Milling")

Filing and Setting Machines, Saw

(See "Machines, Filing and Setting, Band Saw," and "Machines—Saw Filing, Setting and Jointing")

Filing Machines, Sawmill and Machine Shop

(See "Machines, Filing, Sawmill and Machine Shop")

Filings—Iron and Steel

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Heller Bros. Co., Newark, N. J.

Filler or Insulation, Conduit

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Columbian Rope Co., Auburn, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J.
Johns-Manville, New York.
Sauereisen Cements Co., Pittsburgh, Pa.

Filler, Iron and Steel

(See "Cement and Filler, for Iron and Steel")

Fillers, Barrel, Automatic

Bowser, S. F., & Co., Fort Wayne, Ind.
Moran Flexible Steam Joint Co., Louisville, Ky.
Morrison Bros., Dubuque, Iowa.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Fillers, Oiler

Eagle Manufacturing Co., Wellsburg, W. Va.
Rochester Can Co., Rochester, N. Y.
Walters Manufacturing Co., Oakmont, Pa.

Fillet, Leather and Wood

Chicago Rawhide Mfg. Co., The, Chicago.
Himmelein & Bailey, Inc., Camden, N. J.
Illinois Mechanical Leather Co., Chicago, Ill. (Leather only).
Page Belting Co., Concord, N. H. (Leather only)
Schieren, Chas. A., Co., New York, N. Y.

Filtering Materials

Loomis-Manning Filter Manufacturing Co., Philadelphia, Pa.
Newark Wire Cloth Co., Newark, N. J.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Union Fibre Sales Co., Winona, Minn. (For acids, gas and oils)

Filters, Air

American Air Compressor Corp., Brooklyn.
American Air Filter Co., Louisville, Ky.
American Blower Corp., Detroit, Mich.
American Foundry Equipment Co., Mishawaka, Ind.
American Radiator Co., New York, N. Y.

(Continued on page 151)

THE FACTS

behind

an outstanding success

These New Files Are Available in

NICHOLSON
BLACK DIAMOND
McCAFFREY
Brands

Isn't it worth while to try files that are proving that they represent the outstanding improvement in file manufacture in a generation? Nicholson File Company, Providence, R. I., U. S. A.

NEW METHOD OF MANUFACTURE AND TOOTH CONSTRUCTION FULLY PROTECTED BY PATENTS PENDING

A FILE FOR EVERY PURPOSE

UMI

WINNING

success in all fields

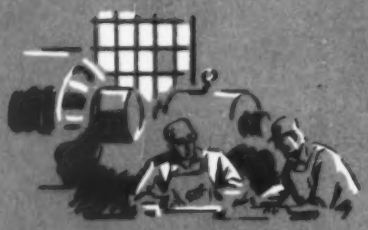
The initial announcement of the NEW Nicholson, Black Diamond and McCaffrey Files urged file users to test these products on their own work under conditions as they actually exist in their own plants. Hundreds of tool users took us at our word — and put these files to severe tests.

FROM ALL OVER THE COUNTRY COMES

UNQUALIFIED APPROVAL OF THESE

NEW FILES

Now come the reports of these tests. They show beyond doubt that the NEW Nicholson, Black Diamond and McCaffrey Files will do all that we claimed — and more.

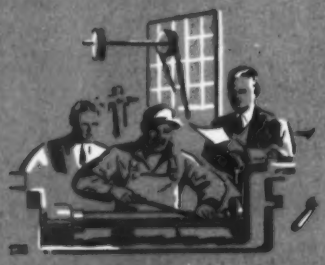


FROM AN INTERNATIONALLY KNOWN MACHINE MANUFACTURER

"These New Files have exceptionally sharp teeth which give lasting service. In fact, they are the toughest files we have ever tried out."

DROP-FORGING PLANT ORDERS

A large New York State concern tried out 12 Flat Bastard files. Praised them highly and then emphasized it with orders.



PRAISE IN VIRGINIA

In a nationally-known machine works, the NEW FILES were given comparative tests by severe critics. They were called "definitely superior."

IN A LUMBER CAMP IN FLORIDA

Most of the men tried the NEW Special Cross Cut File. All claimed it was "far better" than any they had ever had.

IN THE GREEN MOUNTAIN STATE

Head machinist in "fine shop" enthusiastic about the Flat Bastard files, especially for snagging castings.

UMI

Filters, Air

(Continued from page 148)

Baker-Hansen Mfg. Co., Alameda, Calif.
Bastian-Blessing Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Coppus Engineering Corp., Worcester, Mass.
Gast Mfg. Co., The, Bridgman, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Owens-Illinois Glass Co., Toledo, Ohio.
Ruemelin Mfg. Co., Milwaukee, Wis.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sterling Products Co., Detroit, Mich.

Filters, Cistern

Loomis-Manning Filter Manufacturing Co., Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo.

Filters and Purifiers, Feed Water

Crane Co., Chicago, Ill.
Loomis-Manning Filter Manufacturing Co., Philadelphia, Pa.
Miller, E. L., Mfg. Co., Kansas City, Mo.
Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Filters, Oil

Bousman Mfg. Co., Grand Rapids, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Burt Manufacturing Co., The, Akron, O.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Nugent, Wm. W., & Co., Chicago, Ill.
Simplex Spray Equipment Co., Chicago.
Toledo Pressed Steel Co., The, Toledo, Ohio.

Filters, Water, Industrial

American Filter Co., Milwaukee, Wis.
Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Loomis-Manning Filter Manufacturing Co., Philadelphia, Pa.
Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schutte & Koerting Co., Philadelphia, Pa.

Finders, Center

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.

Fire Brick

(See "Brick, Fire")

Fire Clay

Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
General Refractories Co., Philadelphia.
Green, A. P., Fire Brick Co., Mexico, Mo.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Quigley Co., Inc., New York, N. Y.
Wahl Refractory Products Co., Fremont, O.

Fire Engines

(See "Engines, Fire")

Fire Extinguishers

(See "Extinguishers, Fire")

Fire Fighting Safety Outfits, Asbestos

(See "Safety Outfits, Fire Fighting, Asbestos")

Fire Pots

(See "Furnaces, Soldering")

First Aid Cabinets and Equipment

(See "Cabinets and Equipment, First Aid")

Fittings, Air Brake

Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Parker Appliance Co., The, Cleveland, O.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Air Line

(See "Air Line Fittings")

Fittings, Ammonia and Brine

Brunswick-Kroeschell Co., New Brunswick, N. J.
Carbondale Machine Corp., Harrison, N. J.
Crane Co., Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Milwaukee Steam Appliance Co., West Allis, Wis.
New York Brass Foundry Co., New York.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Watson-Stillman Co., The, Roselle, N. J.

Fittings and Couplings, Gasoline Pipe

American Injector Co., Detroit, Mich.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
General Brass Co., Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Brass Co., Port Huron, Mich.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O. (Copper tube)
Ralco Manufacturing Co., Chicago, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Hose, Brass

Acheson Manufacturing Co., Rankin, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Allen, W. D., Mfg. Co., Chicago, Ill.
Atlas Brass Foundry, Los Angeles, Calif.
Bastian-Blessing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Crane Co., Chicago, Ill.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Imperial Brass Mfg. Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mueller Co., Decatur, Ill.
New York Brass Foundry Co., New York.
Paasche Airbrush Co., Chicago, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Safety Fire Extinguisher Co., The, New York, N. Y.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

HOSE
FITTINGS

See Pages 33-36

Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Walworth Co., New York, N. Y.

Fittings, Irrigation

(See "Valves and Fittings, Irrigation")

Fittings, Oil Fixture

Crane Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Pipe, Acid Resisting

Alloy Steel Products Co., Linden, N. J.
Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Atlas Brass Foundry, Los Angeles, Calif.
Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.

Grinnell Co., Inc., Providence, R. I.
Harris, Arthur, & Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
National Lead Co., New York, N. Y.
New York Brass Foundry Co., New York.
Northwest Lead Co., Seattle, Wash.
Perkes, Charles Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Schutte & Koerting Co., Philadelphia, Pa.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Pipe, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Atlas Brass Foundry, Los Angeles, Calif.
Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur, & Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
Newbury Manufacturing Co., Monroe, N. Y.
Newman Bros., Inc., Cincinnati, Ohio.
New York Brass Foundry Co., New York.
Nugent, Wm. W., & Co., Chicago, Ill.
Pancoast, Henry B., Co., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Pipe and Tubing, Brass, Fine Thread

Acheson Manufacturing Co., Rankin, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Parker Appliance Co., The, Cleveland, O.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Fittings, Pipe, Brass, Tinned

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
National Lead Co., New York, N. Y.
New York Brass Foundry Co., New York.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Tube-Turns, Inc., Louisville, Ky.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

When They're Bossed With A "K," Smiles Hold Sway

IN OTHER WORDS

There's experience in them—50 years of it.

There's iron of the right analysis in them.

They're close of grain and smooth and clean.

They're hand inspected and, being accurately threaded and chamfered, they're guaranteed to make up easily and pull tight—the significance to you of that "K" on the casting.

Complete Line in Heavy Production

Standard and Extra Heavy Screwed Fittings, American Sprinkler Fittings, Standard Flanged Fittings, Standard and Extra Heavy Companion Flanges, Drainage Fittings, Strict adherence to M.S.S. standards.

Combined marketing facilities on both "K" cast iron and on M. I. F. malleables. Complete stocks of both at Dayton, Ohio, and Branford, Conn.

Catalog to Mill Supply Houses

KUHNS BROTHERS COMPANY

Established 1887 **Dayton, Ohio**

Fittings, Pipe, Cast Iron

American Car and Foundry Co., New York, N. Y.
American Cast Iron Pipe Co., Birmingham, Ala.
American Foundry & Mfg. Co., St. Louis.
American Radiator Co., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Iron Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago.
Keating, E. F. Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
Kupferle, John C., Foundry Co., St. Louis.
Lynchburg Foundry Co., Lynchburg, Va.
M & H Valve & Fittings Co., Anniston, Ala.
McWane Cast Iron Pipe Co., Birmingham, Ala.
Mitchell, W. K., & Co., Philadelphia, Pa.
Murray, D. J., Mfg. Co., Wausau, Wis.
Newbury, Jay H., & Sons, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N.Y.
Pacific States Cast Iron Pipe Co., Provo, Utah.
Pancoast, Henry B., Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Somerville Iron Works, Somerville, N. J.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Swett, A. L., Iron Works, Medina, N. Y.
Walworth Co., New York, N. Y.

Fittings, Pipe, Compression, Brass and Copper

Chase Brass & Copper Co., Waterbury, Conn. (Solder type)
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Essex Brass Corp., Detroit, Mich.
General Brass Co., Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Brass Co., Port Huron Mich. (Solder type)
Nugent, Wm. W., & Co., Chicago, Ill.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich. (Solder type)

Fittings, Pipe, Copper

Acheson Manufacturing Co., Rankin, Pa.
American Injector Co., Detroit, Mich.
American Radiator Co., New York, N. Y.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
New York Brass Foundry Co., New York.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rickersberg Brass Co., The, Cleveland, O.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Pipe, Flanged

Acheson Manufacturing Co., Rankin, Pa.
Alloy Steel Products Co., Linden, N. J.
American Car & Foundry Co., New York, N. Y.
American Cast Iron Pipe Co., Birmingham, Ala.
American Rolling Mill Co., The, Middletown, Ohio.
Barco Manufacturing Co., Chicago, Ill.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
Lynchburg Foundry Co., Lynchburg, Va.
National Lead Co., New York, N. Y.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Nunn Brass Works, Rochester, N. Y.
Pancoast, Henry B., Co., Philadelphia, Pa.
Perkes, Charles Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Fittings, Pipe, Galvanized Iron

American Rolling Mill Co., The, Middletown, Ohio.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Fittings, Pipe, Hydraulic

Acheson Manufacturing Co., Rankin, Pa.
American Rolling Mill Co., The, Middletown, Ohio.
Barco Manufacturing Co., Chicago, Ill.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Pacific States Cast Iron Pipe Co., Provo, Utah.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Fittings, Pipe, Long Sweep

Acheson Manufacturing Co., Rankin, Pa.
Crane Co., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
Pacific States Cast Iron Pipe Co., Provo, Utah.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Pipe, Malleable Iron

Barco Manufacturing Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Brothers Co., Dayton, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Fittings, Pipe, Monel Metal

Atlas Brass Foundry, Los Angeles, Calif.
Crane Co., Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Pipe, Recessed

Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Fittings, Pipe, Stainless Steel

Alloy Steel Products Co., Linden, N. J.

Fittings, Pipe, Semi-Steel

Bate Boiler Efficiency Co., Conshohocken, Pa.
Crane Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Frederick Iron & Steel Co., The, Frederick, Md.
Grinnell Co., Inc., Providence, R. I.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

FORGED STEEL • FITTINGS •

Watson-Stillman Forged Steel Fittings are designed to meet the requirements of high pressure and high temperature, Oil, Water, Gas, Steam and Chemical Service.

They are fabricated from solid, high tensile steel forgings. Threads are accurately cut and perfectly aligned. Uniform dependable quality is insured by rigid inspection and testing to double their rated pressure.

Write for Bulletin A-3

THE WATSON-STILLMAN CO.

100 ALDENE ROAD, ROSELLE, N. J.

Fittings, Pipe, Steel

American Rolling Mill Co., The, Middletown, Ohio.
Bonney Forge & Tool Works, Allentown, Pa. (Forged)
Central Forging Co., The, Catawissa, Pa.
Crane Co., Chicago, Ill. (Cast and forged)
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis. (Cast)
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio. (Cast and Forged)
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh, Pa. (Forged)
Malleable Iron Fittings Co., Branford, Conn.
Midwest Piping & Supply Co., St. Louis.
Mitchell, W. K., & Co., Inc., Philadelphia.
Parker Appliance Co., The, Cleveland, O.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn. (Cast and forged)
Shaw Kendall Engineering Co., The, Toledo, Ohio. (Cast)
Stockham Pipe & Fittings Co., Birmingham, Ala. (Cast)
South Chester Tube Co., Chester, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky. (Forged)
Walworth Co., New York, N. Y. (Cast and forged)
Watson-Stillman Co., The, Roselle, N. J.

FITTINGS STAINLESS STEEL

SCREWED FITTINGS
FLANGED FITTINGS
NIPPLES—FLANGES

We carry a complete line of Chrome Nickel 18-8 Pipe Fittings in Stock

ALLOY STEEL PRODUCTS CO.
1300 Elizabeth Ave.
LINDEN, NEW JERSEY

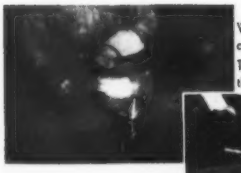
Street Addresses

or

Post Office Box Numbers

of Manufacturers whose products are listed in the Directory Edition will be found in the "Names and Addresses" Section

EASIER TO INSTALL THAN ANY OTHER PIPE FITTING

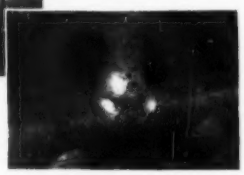


Weldolets and Thredolets are stock welding fittings designed especially for making branch pipe connections such as tees, crosses, side outlets, double crosses, etc., by welding.

They are easier to install than any other fitting because when used, it is not necessary to cut or thread the main pipe in taking off branch lines. Simply select the position of the outlet and weld the fitting into place.

Distortion of the main pipe is eliminated, due to the heavy external rib in the fitting and a junction of full pipe strength is obtained.

The hole is cut either before or after welding the fitting to the main pipe, permitting inspection of the inside of the joint and removal of all scale, icicles, etc. This would not be possible with the use of any other type of fitting.



The branch pipe can then be welded into position with a simple Vee weld, or, if Thredolets are used, screwed into place. The result is an absolutely leak-proof joint of full pipe strength, with turbulence and friction reduced to a minimum.

They are available from stock in outlet sizes from ½" to 12" to fit all sizes of pipe and to meet every piping need. Write today for Bulletin WT21 telling, HOW, WHEN, WHERE and WHY to use them.

The names "WeldOlets" and "ThredOlets" are Bonney Trade Marks registered in the United States Patent Office. Full patent coverage for designs, principles and construction has been granted in the United States and foreign countries.

BONNEY FORGE & TOOL WORKS

Forged Fittings Division

Meadow & Green Streets, ALLENTOWN, PA.

WELDOLETS · THREDOLETS

Fittings, Pipe Welding

Armstrong Bros. Tool Co., Chicago, Ill.
Bonney Forge & Tool Works, Allentown, Pa.
Crane Co., Chicago.
Taylor Forge & Pipe Works, Chicago, Ill.

Fittings, Railing, Brass

(See "Railings and Fittings, Brass")

Fittings, Railing, Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pancoast, Henry B., Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Walworth Co., New York, N. Y.

Fittings, Range Boiler

Acheson Manufacturing Co., Rankin, Pa.
American Radiator Co., New York, N. Y.
Buckeye Forging Co., The, Cleveland, O.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Murray, D. J., Mfg. Co., Wausau, Wis.
Semler Co., Jeannette, Pa.
Walworth Co., New York, N. Y.

Fittings, Refrigeration

(See "Refrigeration Specialties")

Fittings, Tubing

Acheson Manufacturing Co., Rankin, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Nugent, Wm. W., & Co., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Titeflex Metal Hose Co., Newark, N. J.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Wire Rope

American Cable Co., Inc., Wilkes-Barre, Pa.
American Steel & Wire Co., Chicago, Ill.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Hubbard & Co., Pittsburgh, Pa.
Mockbee, C. M., Co., Cincinnati, Ohio.
Republic Steel Corp., Cleveland, Ohio.

"VULCAN" ROPE SOCKETS

Both Open and Closed Patterns in a complete range of sizes, ¼ to 1⅝" rope.

J. H. WILLIAMS & CO.

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75 Spring St. New York, N. Y.

WILLIAMS
SUPERIOR DROP-FORGED TOOLS

Roebling's, John A., Sons Co., Trenton, N. J.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.
Wickwire Spencer Steel Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y. (Sockets)
Williamsport Wire Rope Co., Williamsport, Pa.

Fixtures, Clamp, Steel Bar

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.

Fixtures, Clamp, Wood Bar

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Fixtures, Indexing, for Machine Tools

Angle Steel Stool Co., Plainwell, Mich.
Gisholt Machine Co., Madison, Wis.
Ingersoll Milling Machine Co., Rockford, Ill.
LaPorte Machine & Tool Co., LaPorte, Ind.
Sampson Tool Co., Inc., New York, N. Y.

Flanges, Ammonia

Bonney Forge & Tool Works, Allentown, Pa.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Central Forging Co., Catawissa, Pa.
Crane Co., Chicago, Ill.

Flanges, Boiler

American Radiator Co., New York, N. Y.
Bonney Forge & Tool Works, Allentown, Pa.
Buckeye Forging Co., The, Cleveland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.

Flanges, Companion, Suction Hose

Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.

"DREDNAUT"
DROP FORGED
WIRE ROPE SOCKETS
OPEN AND CLOSED
SIZES ¼" to 2¼"

"U-W" Wire Rope Thimbles
REGULAR PATTERN
EXTRA HEAVY AND LARGE
SPECIAL EXTRA HEAVY AND LARGE
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MANILA ROPE THIMBLES

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Established 1871

Diamond Rubber Co., Inc., The, Akron, O.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Republic Rubber Co., The, Youngstown, O.

Flanges, Pipe, Blind

American Cast Iron Pipe Co., Birmingham, Ala.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J
Fisher Governor Co., The, Marshalltown, Iowa.
Grinnell Co., Inc., Providence, R. I.
Harrisburg Steel Corp., Harrisburg, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
Lynchburg Foundry Co., Lynchburg, Va.
M & H Valve & Fittings Co., Anniston, Ala.
Perkes, Charles, Co., Philadelphia, Pa.

Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Atlas Brass Foundry, Los Angeles, Calif.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fee & Mason Mfg. Co., Inc., New York.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur, & Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Midland Mfg. Co., Ft. Worth, Tex.
Moore Flange Corp., New York, N. Y.
Newbury Manufacturing Co., Monroe, N.Y.
Newman Bros., Inc., Norwood, Cincinnati, Ohio.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Flanges, Pipe, Cast Iron

American Car & Foundry Co., New York, N. Y.
American Cast Iron Pipe Co., Birmingham, Ala.
American Radiator Co., New York, N. Y.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fee & Mason Mfg. Co., Inc., New York.
Frederick Iron & Steel Co., The, Frederick, Md.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
Lynchburg Foundry Co., Lynchburg, Va.
M & H Valve & Fittings Co., Anniston, Ala.
McWane Cast Iron Pipe Co., Birmingham, Ala.
Moore Flange Corp., New York, N. Y.
Newbury, Jay H., & Sons, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Rhode Island Fittings Co., Hillsgrove, R. I.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Flanges, Pipe, Companion

Alloy Steel Products Co., Linden, N. J.
American Cast Iron Pipe Co., Birmingham, Ala.
Clow, James B., Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fisher Governor Co., The, Marshalltown, Iowa.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kuhns Bros. Co., Dayton, Ohio.
Lunkenheimer Co., The, Cincinnati, Ohio.
Lynchburg Foundry Co., Lynchburg, Va.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., Boston, Mass.

Flanges, Pipe, Curved

American Rolling Mill Co., The, Middletown, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos. Mfg. Co., Burlington, N. J.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles Co., Philadelphia, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Pipe, Floor

Atlas Brass Foundry Co., The, Columbus, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fee & Mason Mfg. Co., Inc., New York.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Moore Flange Corp., New York, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Nunn Brass Works, Rochester, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Robinson Mfg. Co., The, Cleveland, Ohio.
Semler Co., Jeannette, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Swett, A. L., Iron Works, Medina, N. Y.
Walworth Co., New York, N. Y.

Flanges, Pipe, Malleable Iron

Brunswick-Kroeschell Co., New Brunswick, N. J.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Flanges, Pipe, Reducing

Bonney Forge & Tool Works, Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Pipe, Semi-Steel

Bate Boiler Efficiency Co., Conshohocken, Pa.
Crane Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Frederick Iron & Steel Co., The, Frederick, Md.
Grinnell Co., Inc., Providence, R. I.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Flanges, Pipe, Steel

American Rolling Mill Co., The, Middletown, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Bonney Forge & Tool Works, Allentown, Pa.
Crane Co., Chicago, Ill.
Harrisburg Steel Corp., Harrisburg, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Mountville Mfg. Co., Mountville, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Flanges, Pipe, Union

(See "Unions, Flange")

Flanges, Pipe, Wrought Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Tank

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bethlehem Steel Co., Bethlehem, Pa.
Bonney Forge & Tool Works, Allentown, Pa.
Buckeye Forging Co., The, Cleveland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Inland Steel Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Welding

Air Reduction Sales Co., New York, N. Y.
Bonney Forge & Tool Works, Allentown, Pa.
Buckeye Forging Co., The, Cleveland, O.
Clow, James B., & Sons, Chicago, Ill.
Harrisburg Steel Corp., Harrisburg, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.

Flares, Truck

Anthes Force Oiler Co., Fort Madison, Iowa.
Embury Manufacturing Co., Warsaw, N. Y.
Toledo Pressed Steel Co., The, Toledo, O.

Flexible Shaft Machines

(See "Machines, Flexible Shaft")

Flexible Shafts

(See "Shafts, Flexible")

Floats, Aluminum

Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Empire Level Manufacturing Co., Milwaukee, Wis.
Fisher Governor Co., The, Marshalltown, Iowa.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Wright-Austin Co., Detroit, Mich.

Floats, Copper

Clow, James B., & Sons, Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Metal Spinning Co., Inc., Detroit.

UMI

Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Fisher Governor Co., The, Marshalltown, Iowa.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Wright-Austin Co., Detroit, Mich.

Floats, Steel

Fisher Governor Co., The, Marshalltown, Iowa.
Harris, Arthur, & Co., Chicago, Ill.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Toledo Pressed Steel Co., The, Toledo, Ohio.
Wright-Austin Co., Detroit, Mich.

Floats, Steel, Stainless

Harris, Arthur, & Co., Chicago, Ill.

Flux, Brazing

(See "Compounds and Fluxes, Brazing")

Flux, Foundry and Welding

Air Reduction Sales Co., New York, N. Y.
American Solder & Flux Co., Philadelphia, Pa.
Anti-Borax Compound Co., Fort Wayne, Ind. (Welding flux only)
Atkins, E. C., and Co., Indianapolis, Ind.
Bastian-Blessing Co., Chicago, Ill.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Chapin, W. R., Co., The, Indianapolis, Ind. (Welding compound)
Colmonoy, Inc., Las Nietos, Calif.
Consolidated Metal Corp., Detroit, Mich.
Cortland Welding Compound Co., Cortland, N. Y.
Dockson, C. H., Co., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lincoln, Electric Co., The, Cleveland, O.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Modern Engineering Co., St. Louis, Mo.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.

Flux, Galvanizing

Consolidated Metal Corp., Detroit, Mich.
Garden City Laboratory, Inc., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
United American Metals Corp., Brooklyn.

Flux, Soldering—Paste, Stick and Liquid

Allen, L. B., Co., Inc., Chicago, Ill.
American Solder & Flux Co., Philadelphia.
Atkins, E. C., and Co., Indianapolis, Ind.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Burnley Battery & Mfg. Co., North East, Pa.
Consolidated Metal Corp., Detroit, Mich.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dunton, M. W., Co., The, Providence, R. I. (Liquids, salts and wire solder)
Everhot Mfg. Co., Maywood, Ill.

The Exact Sodering Flux To Fit the Need

By Specialists in Sodering Materials since 1893

A. THE RIGHT FORM — Powder, Paste, Oil, Fluid, Stick.
B. THE RIGHT STRENGTH— Mild, Medium, Active, Vigorous.

SEND FOR FREE METAL CHART
Shows all metals and their conditions and indicates quickly the exact Sodering flux to use.

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6730 Bryn Mawr Ave. Chicago, U. S. A.

Rubyfluid FLUX
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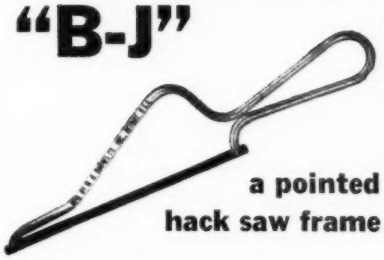

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(See "Clutches, Friction")

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Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
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Rhopac Products Corp., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
U. S. Mineral Wool Co., New York, N. Y.
Victor Mfg. & Gasket Co., Chicago, Ill.
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Gaskets, Cork

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Armstrong Cork Products Co., Lancaster, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Essex Brass Corp., Detroit, Mich.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Jenkins Bros., New York, N. Y.
McCord Radiator & Mfg. Co., Detroit, Mich.
Quadriga Mfg. Co., The, Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
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Victor Mfg. & Gasket Co., Chicago, Ill.

Gaskets, Cylinder

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
McCord Radiator & Mfg. Co., Detroit, Mich.
Quadriga Mfg. Co., The, Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhopac Products Corp., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.

Gaskets, Felt

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Auburn Manufacturing Co., The, Hartford, Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Coleman, Allan J., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Gross, Rubber Co., Sharon, Pa.
McCord Radiator & Mfg. Co., Detroit, Mich.
Quadriga Mfg. Co., The, Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.

Gaskets, Gauge Glass

(See "Washers and Gaskets, Gauge Glass")

Gaskets—Leather, Fibre and Paper

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Auburn Manufacturing Co., The, Hartford, Conn.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill. (Leather and rawhide)
Continental Diamond Fibre Co., Newark, Del.
Couse & Bolten, Inc., Newark, N. J. (Leather)
Darcoid Co., The, New York, N. Y.
Detroit Oak Belting Co., Detroit, Mich.
Elkhart Rubber Works, Elkhart, Ind.
Endura Mfg. Corp., Quakertown, Pa. (Fibre and paper only)
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Himmelein & Bailey, Inc., Camden, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
McCord Radiator & Mfg. Co., Detroit, Mich.
Michigan Leather Packing Co., Detroit.
Minnesota Mining & Mfg. Co., St. Paul, Minn. (Fibre and paper)
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn. (Leather only)
Philadelphia Belting Co., Philadelphia, Pa. (Leather)
Quadriga Mfg. Co., The, Chicago, Ill.
Rhopac Products Corp., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whiting Leather & Belting Co., Long Island City, N. Y.

Gaskets, Manhole and Handhole

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis, Mo.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Field, R. B., & Co., Worcester, Mass.

BELMONT PACKINGS
and GASKETS
made to meet the specific requirements of industry.
Belmont Gaskets are made in a wide range of styles, sizes and shapes.
THE BELMONT PACKING & RUBBER CO.
BUTLER AND SEPVIVA STS. DEPARTMENT T
PHILADELPHIA, PA., U. S. A.

Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Johns-Manville, New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Rockwood Mfg. Co., Indianapolis, Ind.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gaskets, Metallic

Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Couse & Bolten, Inc., Newark, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Janos Asbestos Co., New York, N. Y.
Key Co., East St. Louis, Ill.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Metallo Gasket Co., New Brunswick, N. J. (Also asbestos filled and asbestos cord inlaid)
Quadriga Mfg. Co., The, Chicago, Ill.
Rhopac Products Corp., Chicago, Ill.
Smooth-On Manufacturing Co., Jersey City, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Oil

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Endura Mfg. Corp., Quakertown, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.

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Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
McCord Radiator & Mfg. Co., Detroit, Mich.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Metallo Gasket Co., New Brunswick, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Rubber

Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock, Packing Co., The, Palmyra, N. Y.
General Electric Co., Schenectady, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F. Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Huhn Manufacturing Co., New York, N. Y.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Miller Rubber Co., The, Akron, Ohio.
Morse Grate Bar Co., Inc., Providence, R. I.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Younstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gaskets, Tubular

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gasoline Storage Outfits

(See "Storage Outfits, Gasoline")

Gauges, Ammonia

Bristol Co., The, Waterbury, Conn.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Carbondale Machine Corp., Harrison, N. J.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Nason Manufacturing Co., New York, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
United States Gauge Co., New York, N. Y.
Vogt, Henry, Machine Co., Louisville, Ky.

Gauges, Back, for Band Saws

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Gauges, Bit and Drill

Brown & Sharpe Mfg. Co., Providence, R. I.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.

Gauges, Boiler Water Line

American Injector Co., Detroit, Mich.
American Radiator Co., New York, N. Y.
Bordo, L. J., Co., Inc., Glenside, Pa.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
Keckley, O. C. Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Mercoid Corp., The, Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Gauges, Butt, Door Hanging and Mortising

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Gauges, Caliper

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Gauges, Center

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Circumference

Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Compound

Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Grinnell Co., Inc., Providence, R. I.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
United States Gauge Co., New York, N. Y.

Gauges, Cutting

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Sight Feed Generator Co., Richmond, Ind.
Torchweld Equipment Co., Chicago, Ill.

Gauges—Cylindrical, Plug and Ring

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I. (Cylindrical only)
General Electric Co., Schenectady, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Depth

Ames, B. C., Co., Waltham, Mass.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Parks, Harry S., Co., Philadelphia, Pa.
Starrett, L. S., Co., The, Athol, Mass.
Union Twist Drill Co., Athol, Mass.

Gauges, Dial

Ames, B. C., Co., Waltham, Mass.
Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Belfield, H., Co., Philadelphia, Pa.
Bristol Co., The, Waterbury, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Federal Products Corp., Providence, R. I.
Foxboro Co., The, Foxboro, Mass.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Differential Pressure

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Leeds & Northrup Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Gauges, Draft

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Meriam Co., The, Cleveland, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Republic Flow Meters Co., Chicago, Ill.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester.
Uehling Instrument Co., Paterson, N. J.

Gauges, Duplex Pressure

Bristol Co., The, Waterbury, Conn.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Parks, Harry S., Co., Philadelphia, Pa.
United States Gauge Co., New York, N. Y.

Gauges, Expansion Tank

American Injector Co., Detroit, Mich.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.

Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Milwaukee Valve Co., Milwaukee, Wis.
Parks, Harry S., Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roberts Brass Mfg. Co., The, Detroit, Mich.

Gauges, Feeler or Thickness

Ames, B. C., Co., Waltham, Mass.
Atlas-Ansonia Co., New Haven, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Millers Falls Co., Greenfield, Mass.
National Motor Bearing Co., Inc., Oakland, Calif.
Snap-On Tools, Inc., Kenosha, Wisconsin.
Starrett, L. S., Co., The, Athol, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Gauges, Height

Belfield, H., Co., Philadelphia, Pa.
Bristol Co., The, Waterbury, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Hydraulic

Belfield, H., Co., Philadelphia, Pa.
Blackhawk Manufacturing Co., Milwaukee, Wis.
Bristol Co., The, Waterbury, Conn.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lonergan, J. E., Co., Philadelphia, Pa.
Lourie Manufacturing Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
United States Gauge Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Gauges, Inside Caliper

Ames, B. C., Co., Waltham, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Williams, J. H., & Co., New York, N. Y.

Gauges, Limit

Brown & Sharpe Mfg. Co., Providence, R. I.
Brown, R. H., & Co., New Haven, Conn.
Federal Products Corp., Providence, R. I.
Greenfield Tap & Die Corp., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Liquid Level

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Foxboro Co., The, Foxboro, Mass.
Gurley, W. & L. E., Troy, N. Y.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McNeill Engineering Equipment Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Nason Manufacturing Co., New York, N.Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Wright-Austin Co., Detroit, Mich.

Gauges, Locomotive

Bordo, L. J., Co., Inc., Glenside, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Sargent Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.

Gauges, Loss of Head and Rate of Flow

Foxboro Co., The, Foxboro, Mass.
Parks, Harry S., Co., Philadelphia, Pa.

Gauges, Lumber

Brown & Sharpe Mfg. Co., Providence, R. I.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Lufkin Rule Co., The, Saginaw, Mich.

Gauges, Marking and Mortising, Carpenters'

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Gauges, Mercury

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.

Gauges, Micrometer Caliper

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Oil, Sight Feed

American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Gits Bros. Mfg. Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
United States Gauge Co., New York, N. Y.

Gauges, Oil Level, for Dynamos

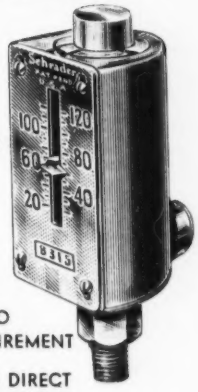
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Electric Co., Schenectady, N. Y.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.

Gauges, Ounce Graduation

Foxboro Co., The, Foxboro, Mass.
Marsh, Jas. P., & Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
United States Gauge Co., New York, N. Y.

PRESSURE GAUGES
OIL HYDRAULIC

FOR ALL MACHINES EMPLOYING HYDRAULIC OIL PRESSURE



- PRESSURE RANGES TO SUIT REQUIREMENT
- ACCURATE DIRECT ACTION PRINCIPLE
- STURDY LONG LIFE

The Direct Operating Gauge having a stainless steel piston, without packing. Stands up under varying pressures and overloads. A direct replacement for Dial Gauges—No change in machine opening is necessary.

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A. SCHRADER'S SON, BROOKLYN, N. Y.
Division of Scovill Manufacturing Company Incorporated

Gauges, Oxygen and Acetylene

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Harris Calorific Co., The, Cleveland, O.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Marsh, Jas. P., & Co., Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Pittsburgh Thermoline Co., Pittsburgh.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco, Calif.

Gauges, Plane

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.

Gauges, Planer and Shaper

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Pressure

Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Brunner Manufacturing Co., Utica, N. Y.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y. (Hydraulic)
Foxboro Co., The, Foxboro, Mass.

Hoffman Specialty Co., Inc., Waterbury, Conn.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Sargent Co., Chicago, Ill.
Schrader's, A., Son, Division of Scovill Mfg. Co., Inc., Brooklyn, N. Y.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Co., New York, N. Y.

Gauges, Pressure and Vacuum, Compound

Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Milwaukee Valve Co., Milwaukee, Wis.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Parks, Harry S., Co., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Gauges, Pressure, Electrical Alarm

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Co., New York, N. Y.

Gauges, Pressure, Recording

Bastian-Blessing Co., Chicago, Ill.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Gauges—Rack, Pinion and Gear Tooth

Ames, B. C., Co., Waltham, Mass.
Federal Products Corp., Providence, R. I.

Gauges, Radius

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Rolling Mill

Brown & Sharpe Mfg. Co., Providence, R. I.

Gauges, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Jones Superior Machine Co., Chicago, Ill.
Simonds Saw and Steel Co., Fitchburg, Mass.

Gauges, Saw, Swing, Automatic

Covel-Hanchett Co., Big Rapids, Mich.

Gauges, Scratch

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Screw and Wire

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Greenfield Tap & Die Corp., Greenfield, Mass.
Helz & Heiz, Inc., Brooklyn, N. Y.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Rawlplug Co., Inc., New York, N. Y.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Screw Pitch or Thread

Bath, John & Co., Inc., Worcester, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Snap

Brown & Sharpe Mfg. Co., Providence, R. I.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Gauges, Stair

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Steam, Pyrometer

Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester.
Thwing Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Gauges, Surface

Ames, B. C., Co., Waltham, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Tank, Indicator

Bastian-Blessing Co., Chicago, Ill.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn. (For aircraft, etc.)
Viking Pump Co., Cedar Falls, Iowa.

Gauges, Tap

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Taper

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Pratt & Whitney Co., Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Telescoping

Brown & Sharpe Mfg. Co., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Test

Ames, B. C., Co., Waltham, Mass.
Bastian-Blessing Co., Chicago, Ill.
Boekel, Wm., & Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Pratt & Whitney, Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
United States Gauge Co., New York, N. Y.

Gauges, Thickness

(See "Gauges, Feeler or Thickness")

Gauges, Track

Aldon Co., The, Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.

Gauges, Traction Engine

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.

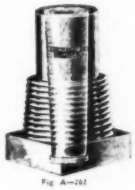
Gauges, Vacuum

Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Uehling Instrument Co., Paterson, N. J.

Manufacturers' Street Addresses will be found in the "Names and Addresses" Section

BOILER FITTINGS

Water Gauges, Gauge Cocks, Fusible Plugs. Designed to meet the specifications of the ASME, the Massachusetts Boiler Code, the Steamboat Inspection Service of the United States Department of Commerce. Fusible Plugs are made in accordance with the above specifications, and should be replaced in every boiler each year. Water Gauges and Gauge Cocks of highest quality of workmanship, material, and finish. Moderately priced with attractive discounts, they make a profitable and satisfactory line to handle.



AMERICAN INJECTOR CO.
DETROIT, MICH.

Gauges, Water

(See also "Columns, Water")

American Injector Co., Detroit, Mich.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
Gurley, W. & L. E., Troy, N. Y.
Huyette, Paul B., Co., Inc., Philadelphia.
Keckley, O. C., Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Marsh, Jas. P., & Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Nason Manufacturing Co., New York, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Sargent Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Gauges, Water, Quick Closing

Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Huyette, Paul B., Co., Inc., Philadelphia.
Keckley, O. C., Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Nason Manufacturing Co., New York, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Wright-Austin Co., Detroit, Mich.

Gauges, Water, Safety

American Radiator Co., New York, N. Y.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J. Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Huyette, Paul B., Co., Inc., Philadelphia.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mercoid Corp., The, Chicago, Ill.
Nason Manufacturing Co., New York, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Williams, D. T., Valve Co., The, Cincinnati.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia.

Gauges, Welding

(See "Gauges, Oxygen and Acetylene")

Gauges, Wire

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Federal Products Corp., Providence, R. I.
Leard, William, Co., Inc., The, New Brighton, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Union Twist Drill Co., Athol, Mass.

Gear Blanks

(See "Blanks, Gear")

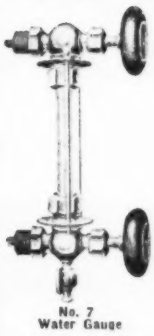
Gear Cutting Attachments

(See "Cutting Attachments, Gear")

Gear Cutting Machines

(See "Machines, Cutting, Gear")

FOR WATER GAUGES



No. 7
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Air Valves
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Boiler Draw-Off Cocks
Fusible Plugs

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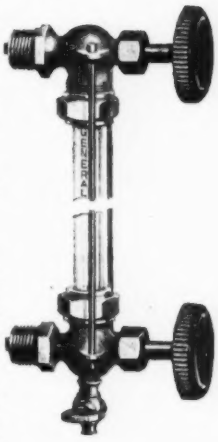

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Refinements in details — handles — dripless drain cock —stems assembled with formed asbestos packing rings—make them ready for instant use. No bother—no expense.

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Catalog and Prices on request

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2000 Franklin St., DETROIT, U. S. A.

Gear Testing Machines

(See "Machines, Gear Testing")

Gearing, Friction

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Bond, Charles, Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Rockwood Mfg. Co., Indianapolis, Ind.
Schultz, A. L., & Son, Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Gears and Pinions, Bakelite

Bond, Charles, Co., Philadelphia, Pa.
Boston Gear Works, Inc., North Quincy, Mass. (Non-metallic)
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., The, Cleveland, O.
Illinois Gear & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Ohio Forge & Machine Corp., Cleveland, O.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith, Winfield H., Inc., Springfield, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

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MEDART has been making gears and sprockets for 55 years. Accumulated patterns make it possible to supply almost every conceivable gear or sprocket need on short notice.

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Gears and Pinions, Brass and Bronze

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American Die & Tool Co., Inc., Reading, Pa.
American Hoist & Derrick Co., St. Paul, Minn.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry, Los Angeles, Calif.
Bond, Charles, Co., Philadelphia, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chain Belt Co., Milwaukee, Wis.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., The, Cleveland, O.
Illinois Gear & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Messmer Brass Co., St. Louis, Mo.
Miller Machine Works, Springs, Pa.
Ohio Forge & Machine Corp., Cleveland, O.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Roper, Geo. D., Corp., Rockford, Ill.
Smith, Winfield H., Inc., Springville, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.
Wood's, T. B., Sons, Co., Chambersburg, Pa.

Gears and Pinions, Cast Iron and Steel

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Die & Tool Co., Inc., Reading, Pa.
American Hoist & Derrick Co., St. Paul, Minn.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Bond, Charles, Co., Philadelphia, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chain Belt Co., Milwaukee, Wis.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
DeLaval Steam Turbine Co., Trenton, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falk Corp., The, Milwaukee, Wis.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Fitz Water Wheel Co., Hanover, Pa.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., The, Cleveland, O.
Huron Industries, Inc., Alpena, Mich.

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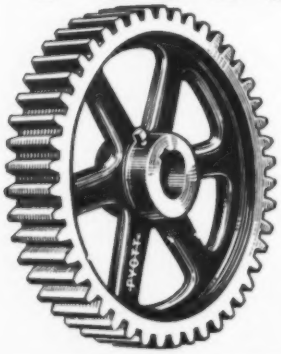
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Miller Machine Works, Springs, Pa.
Ohio Forge & Machine Corp., Cleveland, O.
Oliver Machinery Co., Grand Rapids, Mich.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Roper, Geo. D., Corp., Rockford, Ill.
Schultz, A. L., & Son, Chicago, Ill.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Waldron, John, Corp., New Brunswick, N. J.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Gears and Pinions, Fibre

American Hoist & Derrick Co., St. Paul, Minn.
Bond, Charles, Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Horsburgh & Scott Co., The, Cleveland, O.
Illinois Gear & Machine Co., Chicago, Ill.
Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Forge & Machine Corp., Cleveland, O.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Smith, Winfield H., Inc., Springville, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

PYOTT GEARS



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Medart Co., The, St. Louis, Mo.
Philadelphia Gear Works, Philadelphia, Pa.

Gears and Pinions, Rawhide

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Bond, Charles, Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., Cleveland, Ohio.
Illinois Gear & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Ohio Forge & Machine Corp., Cleveland, O.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Gears, Reverse

Barco Manufacturing Co., Chicago, Ill.
Bond, Charles, Co., Philadelphia, Pa.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falk Corp., The, Milwaukee, Wis.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Link-Belt Co., Chicago, Ill.
Ohio Forge & Machine Corp., Cleveland, O.
Philadelphia Gear Works, Philadelphia, Pa.
Twin Disc Clutch Co., Racine, Wis.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Gears, Speed Reduction

(See "Reducers, Speed")

Generating Sets, Electric

(See "Sets, Generating, Electric")

Generators, Acetylene, for Welding and Cutting

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Harris Calorific Co., The, Cleveland, Ohio.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Milburn, Alexander, Co., The, Baltimore, Md.
Modern Engineering Co., St. Louis, Mo.
Pittsburgh Thermoline Co., Pittsburgh, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Torit Mfg. Co., St. Paul, Minn.

Generators, Electric

(See "Motors and Generators, Electric")

Generators, Hot Water

Devlin, Thos., Mfg. Co., Burlington, N. J.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.

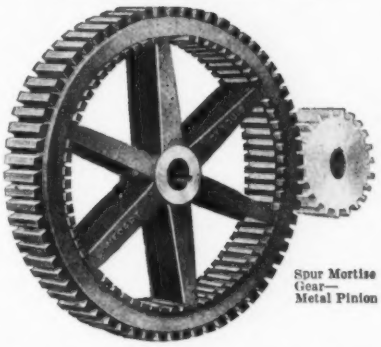
Gib Keys

(See "Keys, Gib")

Glass Protectors, Gauge

(See "Guards, Glass, Gauge")

MEDART



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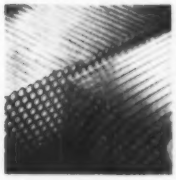
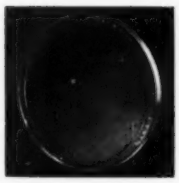


"Pyrex" Tubing

"Pyrex" Piping

"Pyrex" Sheet Glass



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Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Chesterton, A. W., Co., Boston, Mass.
Chicago Engineer Supply Co., Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Corning Glass Works, Corning, N. Y.
Crane Co., Chicago, Ill.
Creamer Glass Works, Millville, N. J.
Detroit Lubricator Co., Detroit, Mich.
Durabla Manufacturing Co., New York.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Friedrich & Dimmock, New York, N. Y.
Jenkins Bros., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Macbeth-Evans Glass Co., Charleroi, Pa.
Milwaukee Valve Co., Milwaukee, Wis.
Moeller Instrument Co., Inc., Brooklyn.
Penberthy Injector Co., Detroit, Mich.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Sargent Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Wright-Austin Co., Detroit, Mich.

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American Injector Co., Detroit, Mich.
Bache, Semon, & Co., New York, N. Y.
Consolidated Brass Co., Detroit, Mich.
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Creamer Glass Works, Millville, N. J.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Friedrich & Dimmock, New York, N. Y.
Jenkins Bros., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Macbeth-Evans Glass Co., Charleroi, Pa.

Gloves and Mittens, Protective

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Chicago Eye Shield Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Rubber Co., The, Akron, O.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Ideal Face Shield Co., The, Columbus, O.
Industrial Gloves Corp., Danville, Ill.
Janos Asbestos Co., New York, N. Y.
K-G Welding & Cutting Co., Inc., New York.
Keller Glove Mfg. Co., Plumsteadville, Pa.
Lincoln Electric Co., The, Cleveland, Ohio.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Rubberwear Glove Co., Akron, Ohio.
Russell, Frank, Glove Co., The, Berlin, Wis.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.
Spartan Glove Co., The, Dayton, Ohio.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Gloves and Mittens, Working

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Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Industrial Gloves Corp., Danville, Ill.
Keller Glove Mfg. Co., Plumsteadville, Pa.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Rubberwear Glove Co., Akron, Ohio.
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Cover, H. S., South Bend, Ind.
Dockson, C. H., Co., Detroit, Mich.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Safety Equipment Service Co., Cleveland.
Willson Products, Inc., Reading, Pa.

Gongs and Bells

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Fisher Governor Co., The, Marshalltown, Iowa.
Perkins Marine Lamp & Hardware Corp., Brooklyn.
Reiter, G. C., Canton, Ohio.
Rope Fire Escape Co., Philadelphia, Pa.
Scovill Mfg. Co., Waterbury, Conn.
Signal Electric Mfg. Co., Menominee, Mich.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Goosenecks

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American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Farnan Brass Works Co., The, Cleveland, Ohio.
Friedrich & Dimmock, New York, N. Y. (Glass)
Hays Manufacturing Co., Erie, Pa.
National Lead Co., New York, N. Y.
Vulcan Tool Mfg. Co., Quincy, Mass.

Gouges

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Greenlee Bros. & Co., Rockford, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Sandvik Saw & Tool Corp., Minneapolis.
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(See "Chisels and Gouges, Turning")

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Filer & Stowell Co., The, Milwaukee, Wis.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Gardner-Denver Co., Quincy, Ill.
Hennebohle, Frank, Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Simplex Spray Equipment Co., Chicago, Ill.
United States Air Compressor Co., Cleveland, Ohio.

Governors, Belt

Dodge Manufacturing Corp., Mishawaka, Ind. (Roller bearing)
Schieren, Chas. A., Co., New York, N. Y.

Governors, Boiler Feed

Burrows, F. A., Mfg. Co., York, Pa.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Syracuse Steam Generator, Inc., Syracuse.
Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

Governors, Engine

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Fisher Governor Co., The Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Gardner-Denver Co., Quincy, Ill.
Judson Governor Co., The, Rochester, N.Y.
Kieley & Mueller, Inc., New York, N. Y.
Massey Machine Co., Watertown, N. Y.

Governors, Fan Engine

(See "Regulators, Controllers or Governors—Fan Engine")

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Belfield, H., Co., Philadelphia, Pa.
Cardwell Machine Co., The, Richmond, Va.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N.J.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc. New York.
Foster Engineering Co., Newark, N. J.
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Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Keckley, O. C., Co., Chicago Ill.
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Klipfel Manufacturing Co., Chicago Ill.
Leslie Co., Lyndhurst, N. J
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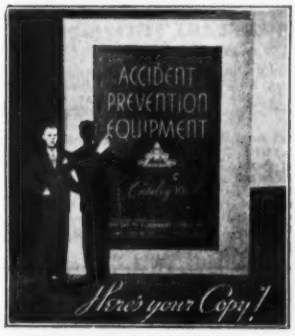

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50-lb. containers
100-lb. containers
Half-barrels
Barrels

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Superior Flake Graphite Co., Chicago, Ill.
Sauereisen Cements Co., Pittsburgh, Pa.
United States Graphite Co., The, Saginaw, Mich.

Graphite Lubricants

(See "Greases, Graphite," and "Oil, Penetrating, Graphite,")

Graphite, Other Types

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Key Co., East St. Louis, Ill.
Scranton Pump Co., The, Scranton, Pa.
Superior Flake Graphite Co., Chicago, Ill.
United States Graphite Co., The, Saginaw, Mich.

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Grease and Coating, Gear and Pinion

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Cook's, Adam, Sons, Inc., Linden, N. J.
Franklin Oil & Gas Co., The, Bedford, Ohio.
Harris, A. W., Oil Co., Providence, R. I.
Keystone Lubricating Co., Philadelphia.
Lubriplate Division, Fiske Brothers Refining Co., New York, N. Y.
Master Lubricants Co., Philadelphia, Pa.
Standard Oil Co. of New York, The, New York, N. Y.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Stuart, D. A., Oil Co., Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.
United States Graphite Co., The, Saginaw, Mich.

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(See "Oil and Grease, Lubricating")

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Baum's Castorine Co., Rome, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Ideal Commutator Dresser Co., Sycamore, Ill.
Keystone Lubricating Co., Philadelphia.
Lubriplate Division, Fiske Brothers Refining Co., New York, N. Y.
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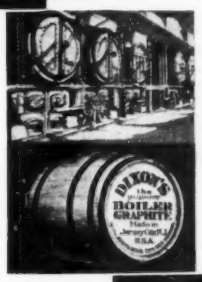

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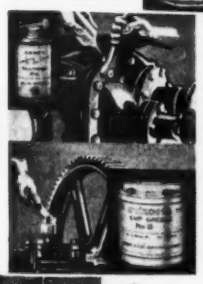

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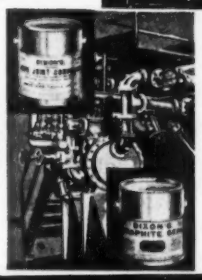

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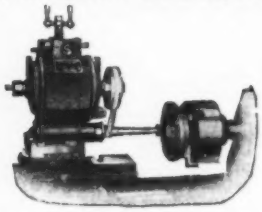
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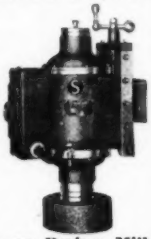
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Clizbe Bros. Mfg. Co., Plymouth, Ind.
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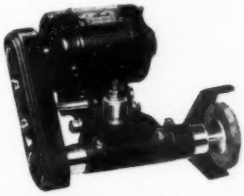

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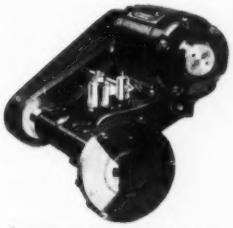

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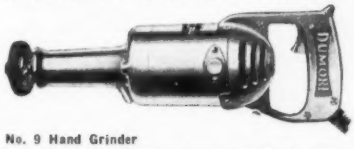
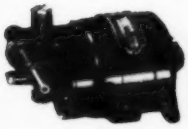


No. 9 Hand Grinder

The **No. 9** is a production hand grinder for work on automobile body dies, forming dies, molds and other heavy off hand work. Weighs but 7 lbs.—powered by a Dumore 1/5 h.p. universal motor. Maximum speed 16,000 r.p.m. Has an efficient built-in air filter. Choice of end or side handle. Equipment includes straight and mounted wheels, wrenches, extension arbor and cord.....$40.00

4 R. P. M. AND UP



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Brown & Sharpe Mfg. Co., Providence.
Dumore Co., The, Racine, Wis.
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Hisey-Wolf Machine Co., The, Cincinnati.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Norton Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Union Twist Drill Co., Athol, Mass.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.

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Sunnen Products Co., St. Louis, Mo.

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Layth-Grindar Corporation, Orange, N. J.
Norton Co., Worcester, Mass.
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Mall Tool Co., Chicago, Ill.
Onsrud Machine Works, Inc., Chicago, Ill.
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Rogers, Samuel C., & Co., Buffalo, N. Y.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electrical Tool Co., The, Towson, Md.

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Stow Mfg. Co., Inc., Binghamton, N. Y.
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(Continued on page 173)

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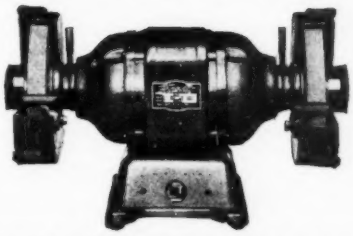

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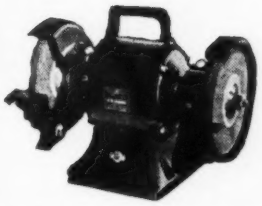
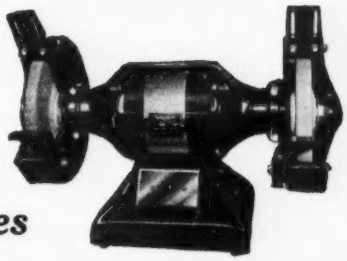
BLACK & DECKER

Electric Bench Grinders



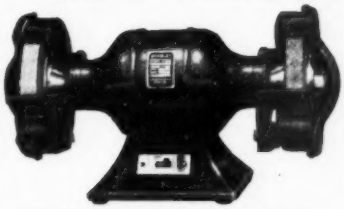


6", 7" and 10" sizes

Powerful, balanced Motors
Ball-bearings—wide frame

The Black & Decker Mfg. Co.
Towson, Md.

STANLEY GRINDERS



• Full Ball Bearing — bearings are enclosed against dirt and grit, and mounted close to the wheels to eliminate spindle vibration.

Bench and Floor Models
with 6", 7" and 10" wheels

• The Stanley Line also includes:
Tool Room Grinder
Flexible Shaft Grinder
Portable Grinders with 5" and 6" wheels

• SAFETY EYE SHIELDS
Easily attached to guards on any Grinder. Safe. Sanitary. Inexpensive. Always on the job.

• Write for catalog.

STANLEY ELECTRIC TOOL DIVISION
The Stanley Works
141 Elm Street New Britain, Conn.

STANLEY Electric TOOLS

Grinders, Electric, Bench and Floor

(Continued from page 172)

Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cutter Machine Co., St. Louis, Mo. (Floor only)
Delta Mfg. Co., Milwaukee, Wis.
Diehl Mfg. Co., Elizabethport, N. J.
Dumore Co., The, Racine, Wis.
Forbes & Myers, Worcester, Massachusetts
Hisey-Wolf Machine Co., The, Cincinnati.
Hobart Bros. Co., Troy, Ohio.
Independent Pneumatic Tool Co., Chicago.
Kingston-Conley Electric Co., North Plainfield, N. J.

(Continued on page 174)

SKILSAW
BENCH GRINDERS

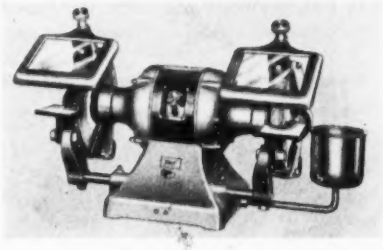
37 models of bench and pedestal grinders and buffers from 1/6 H.P. to 1½ H.P. Powerful, enclosed motors, dynamically balanced to prevent vibration; ball bearing construction. Higher performance than N.E.L.A. and N.E.M.A. standards.

MODEL 18—Two 6x⅝x½ in. wheels; ¼ H.P. motor; 3450 R.P.M.; 110 volts, single phase, 60 cycles. Each $25

SKILSAW, INC. • 3330 Elston Ave., Chicago

WALKER-TURNER

BENCH GRINDERS



GR57—a ½ h.p. heavy duty grinder with plenty of overload capacity to handle all kinds of heavy work under continuous use.

7" wheels, carefully balanced. Operating speed 3500 R.P.M. Large grease-sealed SKF ball bearings.

Other Walker-Turner Grinders are available for lighter or occasional work.

All are described in the new 1937 Walker-Turner catalog.

WALKER-TURNER CO., INC.
Plainfield, N. J.

Engineered POWER TOOLS

UMI

"Van Dorn"

Electric
Bench Grinders

Four Units, ranging in size and price—

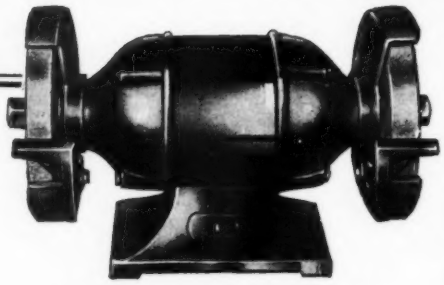
6" Special
6" Heavy Duty
7" and 10" Wide type

•

POWERFUL
WELL-BALANCED

The VAN DORN
Electric Tool Co.
TOWSON, MD.

VALLEY GRINDERS



Valley 15-AL Heavy Duty Bench Grinder

Bench and Pedestal Types

The Valley Electric Corporation makes a complete line of bench and pedestal type grinders and buffers. All units are built to a single high standard of quality, protected by the Valley guarantee. Valley Grinders and Buffers are Valley Powered—Driven by Valley Motors.

TYPES—Ball-Bearing Motor-in-Head, Heavy Duty Long Shaft Grinders; Ball-Bearing Heavy Duty Bench Grinders; Ball-Bearing Heavy Duty Motor-in-Head Grinders; Ball-Bearing, Motor-in-Head Heavy-Duty Buffers.

SIZES—Bench Grinders, 1/4 hp. to 1 hp.; Pedestal Grinders, 1 hp. to 5 hp.

Valley Distributors are building up a profitable business because Valley Ball-Bearing Grinders enjoy a well-earned reputation for unexecelled performance.

VALLEY ELECTRIC CORP.
4221-27 Forest Park Boulevard
ST. LOUIS, MO.

Grinders, Electric, Bench and Floor

(Continued from page 173)

Louisville Electric Manufacturing Co., Louisville, Ky.
Luther, Inc., Milwaukee, Wis.
Mall Tool Co., Chicago, Ill.
Marathon Electric Manufacturing Corp., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Misener Mfg. Co., Inc., Syracuse, N. Y.
Oliver Machinery Co., Grand Rapids, Mich.
Onsrud Machine Works, Inc., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Robbins & Myers Inc., Hoist & Crane Division, Springfield, Ohio.
Rockford Machine Tool Co., Rockford, Ill.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Syntron Co., Pittsburgh, Pa.
U. S. Electrical Motors, Inc., Los Angeles, Cal.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Valley Electric Corp., St. Louis, Mo.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa.

Every Effort Has Been Made

to Make

The Directory Edition

as Complete and Up-to-date as Possible

However, There May Be Instances Where You Do Not Find the Information You Are Seeking

In Such Cases, Write

MILL SUPPLIES

And We Will Do Everything We Can to Secure It for You

BLACK & DECKER

Portable Electric GRINDERS

In three sizes—
4", 5" and 6".

Balanced—dust sealed.

Ideal for buffing, brushing and grinding.

The

Black & Decker Mfg. Co.,

Towson, Maryland

Grinders, Electric, Portable

Atlas Press Co., Kalamazoo, Mich.
Behr-Manning Corp., (Norton Abrasives), Troy, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Blount, J. G., Co., Everett, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Delta Mfg. Co., Milwaukee, Wis.
Diehl Mfg. Co., Elizabethport, N. J.
Dumore Co., The, Racine, Wis.
Gilbert, J. E., Grinder Co., Milwaukee, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Ideal Commutator Dresser Co., Sycamore, Ill.
Independent Pneumatic Tool Co., Chicago.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Kingston-Conley Electric Co., North Plainfield, N. J.
Layth-Grindar Corp., Orange, N. J.
Louisville Electric Manufacturing Co., Louisville, Ky.
M. C. Tool Co., Chicago, Ill.
McGonegal Mfg. Co., The, East Rutherford, N. J.
Mall Tool Co., Chicago, Ill.
Marathon Electric Manufacturing Corp., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Pratt & Whitney Co., Hartford, Conn.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Sunnen Products Co., St. Louis, Mo.
Syntron Co., Pittsburgh, Pa.

SKILSAW HAND GRINDER

WEIGHS ONLY 3 LBS.
SPEED 18,000 R.P.M.

$35

Cool, light Bakelite body; ball bearing construction. Complete with chuck; 2 chuck wrenches; 10 ft. of cord; 2 grinding wheels; polishing wheel; dressing stone; steel carrying case.

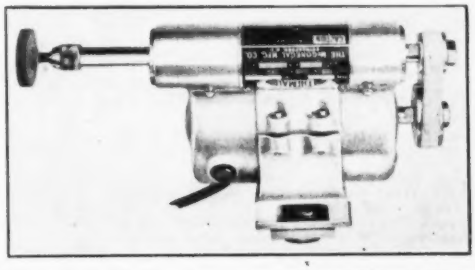
SKILSAW, INC. • 3330 Elston Ave., Chicago

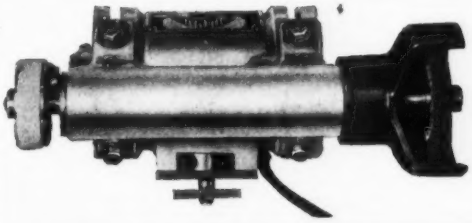
THEMAC PORTABLE ELECTRIC TOOLS

GRINDER–TYPE J-1

$60.00

The Themac, Type J-1 has been designed for use on small bench lathes in the shop that desires an inexpensive tool capable of doing a precision grinding job. The grinding spindle-motor unit is circumferentially adjustable 240 degrees. The unit locks quickly and securely in clamp bracket mounting by means of two screws.





GRINDER–TYPE J-3

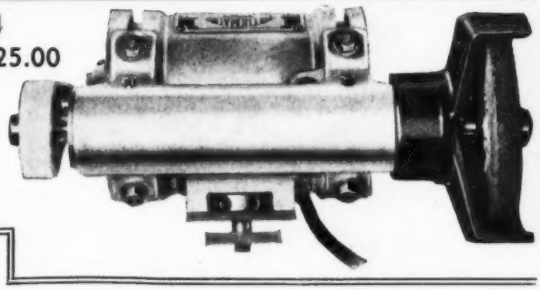
$92.50

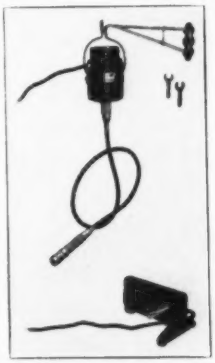
The Themac Type J-3, is completely equipped to handle quickly any grinding job. Its 3 bearing spindle design assures accurate and efficient grinding, both external and internal.

GRINDER–TYPE J-4

$125.00

The Themac, Type J-4, has a 7/8" diameter, hardened and ground, grinding spindle, mounted on 3 matched precision bearings. Speedier grinding is possible with the rugged, powerful 1/4 H. P. motor, which permits accurate grinding of any size lathe running in open belt.





A THEMAC PRODUCT

Type 1300 Flexible Shaft Tools can be supplied with 4 different types of handpiece. High speed universal motor with foot control.

Write for catalog and prices.

THE McGONEGAL MFG. CO.

228 Orchard Street East Rutherford, New Jersey

Originators of Portable Tool Post Grinders That Actually Do Difficult Grinding Jobs on Any Size Lathe.

"Van Dorn"

Portable Electric Grinders

4", 5" & 6" Sizes

Increased Power
Ball-Bearings

The Van Dorn Electric Tool Co.
TOWSON, MD.

UMI

United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.
Wodack Electric Tool Corp., Chicago, Ill.

Grinders, Emery

(See "Grinders, Tool")

Grinders, Flexible Shaft

Dumore Co., The, Racine, Wis.
Flexible Shafts, Inc., Binghamton, N. Y.
Gem Manufacturing Co., Pittsburgh, Pa.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
McGonegal Mfg. Co., The, East Rutherford, N. J.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., Cincinnati, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Grinders, Gear

Covel-Hanchett Co., Big Rapids, Mich.
Ingersoll-Rand Co., New York, N. Y.
National Tool Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.

Grinders, Guide Bar

Norton Co., Worcester, Mass.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.

Grinders, Hole and Face

Brown & Sharpe Mfg. Co., Providence, R. I.
Dumore Co., The, Racine, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Layth-Grindar Corp., Orange, N. J.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.

Grinders, Internal

Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Dumore Co., The, Racine, Wis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Layth-Grindar Corp, Orange, N. J.
Mall Tool Co., Chicago, Ill.
Micro-Westco, Inc., Bettendorf, Iowa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Onsrud Machine Works, Inc., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Sundstrand Machine Tool Co., Rockford, Ill.
Sunnen Products Co., St. Louis, Mo.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Knife

Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp., (Norton Abrasives), Troy, N. Y.
Boice-Crane Company, Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Foley Manufacturing Co., Minneapolis, Minn.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Mountville Mfg. Co., Mountville, Pa.
Mummert-Dixon Co., Hanover, Pa.
Norton Co., Worcester, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Oilstone

Mummert-Dixon Co., Hanover, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Wallace, J. D., & Co., Chicago, Ill.

Grinders, Parallel

(See "Grinders, Angle Plate or Parallel")

Grinders, Patternmakers'

Besly, Charles H., & Co., Chicago, Ill.
Blount, J. G., Co., Everett, Mass.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel-Hanchett Co., Big Rapids, Mich.
Dumore Co., The, Racine, Wis.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hisey-Wolf Machine Co., The, Cincinnati.
Mall Tool Co., Chicago, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Grinders, Piston

Brown & Sharpe Mfg. Co., Providence, R. I.
Covel-Hanchett Co., Big Rapids, Mich.
Norton Co., Worcester, Mass.
Van Norman Machine Tool Co., Springfield, Mass.

Grinders, Piston Ring

Besly, Charles H., & Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.

Grinders, Pneumatic

Buckeye Portable Tool Co., The, Dayton, O.
Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Onsrud Machine Works, Inc., Chicago, Ill.
Schramm, Inc., West Chester, Pa.
Sheldon Machine Co., Chicago, Ill.

Grinders, Radial

Mummert-Dixon Co., Hanover, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Van Norman Machine Tool Co., Springfield, Mass.

Grinders, Saw

(See "Sharpeners and Grinders, Saw")

Grinders, Surface

Armstrong-Blum Mfg. Co., Chicago, Ill.
Besly, Charles H., & Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Clark, James, Jr., Electric Co., Louisville, Ky.
Dumore Co., The, Racine, Wis.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Norton Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walls Sales Corp., New York, N. Y.

Grinders, Swing Frame

Black & Decker Mfg. Co., The, Towson, Md.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mummert-Dixon Co., Hanover, Pa.
Norton Co., Worcester, Mass.
Pittsburgh Engineering Works, Pittsburgh, Pa.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sterling Grinding Wheel Co., The, Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Tool

American Die & Tool Co., Inc., Reading, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Baldor Electric Co., St. Louis, Mo.
Behr-Manning Corp., (Norton Abrasives), Troy, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Blount, J. G., Co., Everett, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cutter Machine Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Dumore Co., The, Racine, Wis.
Foley Manufacturing Co., Minneapolis.
Forbes & Myers, Worcester, Mass.
Gisholt Machine Co., Madison, Wis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Layth-Grindar Corp., Orange, N. J.
Luther Grinder & Tool Co., Milwaukee, Wis.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Norton Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill.
U. S. Electrical Motors, Inc., Los Angeles.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Valley Electric Corp., St. Louis, Mo.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Grinders, Tool Post

Atlas Press Co., Kalamazoo, Mich.
Buckeye Portable Tool Co., The, Dayton, O.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Dumore Co., The, Racine, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Layth-Grindar Corp., Orange, N. J.
McGonegal Mfg. Co., The, East Rutherford, N. J.
Mall Tool Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee.
Onsrud Machine Co., The, Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cinnati, Ohio.

Grinders, Twist Drill

Atlas Press Co., Kalamazoo, Mich.
Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Hisey-Wolf Machine Co., The, Cincinnati.
Luther Grinder & Tool Co., Milwaukee.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Union Twist Drill Co., Athol, Mass.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat Inc., Pittsburgh, Pa.

Grinders, Universal

Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Pneumatic Tool Co., New York.
Clark, James, Jr., Electric Co., Louisville, Ky.
Greenfield Tap & Die Corp., Greenfield, Mass.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Norton Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Valve

American Swiss File & Tool Co., Elizabeth, N. J.
Black & Decker Mfg. Co., The, Towson, Md.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Brunner Manufacturing Co., Utica, N. Y.
Clark, James, Jr., Electric Co., Louisville, Ky.

Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Dumore Co., The, Racine, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stevens, Walden, Inc., Worcester, Mass. (Hand, gas engine)
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.

Grinders, Vertical, Angle Plate

Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinding Attachments

Boice-Crane Co., Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Eye Shield Co., Chicago, Ill. (Grinder guards)
Dumore Co., The, Racine, Wis.
Gisholt Machine Co., Madison, Wis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Layth-Grindar Corp., Orange, N. J.
Mountville Mfg. Co., Mountville, Pa.
Norton Co., Worcester, Mass.
Strand, N. A., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Grinding Compounds

(See "Compounds, Grinding," and "Compounds, Valve Grinding")

Grinding Wheels

(See "Wheels, Grinding")

Grindstones

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Athol Machine & Foundry Co., Athol, Mass.
Behr-Manning Corp., Troy, N. Y.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Western Products, Inc., Newcastle, Ind.

Grindstones, Motor Driven, Portable

Atkins, E. C., and Co., Indianapolis, Ind.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grips, Cable

Clark Manufacturing Co., The, Philadelphia, Pa.
Klein, M., & Son, Chicago, Ill.
Ralco Manufacturing Co., Chicago, Ill.

Grips, File, Leather

Schieren, Chas. A., Co., New York, N. Y.

Grips, File, Rubber

Goodrich, B. F., Co., The, Akron, Ohio.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Osgood, J. L., Machinery & Tool Co., Inc., Buffalo, N. Y.

Grips, Linemen's

Klein, M., & Sons, Chicago, Ill.
Republic Rubber Co., The, Youngstown, O.

Grooving Machines

(See "Machines, Grooving")

Guards, Electric Lamp

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Euclid Rubber Co., Cleveland, Ohio.
Flexible Steel Lacing Co., Chicago, Ill.
Hubbell, Harvey, Inc., Bridgeport, Conn.
McGill Manufacturing Co., Valparaiso, Ind. (Wall, portable, reflector, lock)
Washburn Co., The, Worcester, Mass.

Guards, Glass, Gauge

Bache, Semon, & Co., New York, N. Y.
Capitol Brass Division Bohn Aluminum & Brass Corp., Detroit, Mich.
Corning Glass Works, Corning, N. Y.
Essex Brass Corp., Detroit, Mich.
Keckley, O. C., Co., Chicago, Ill.
Macbeth-Evans Glass Co., Charleroi, Pa.
Nason Manufacturing Co., New York, N. Y.
Roberts Brass Mfg. Co., The, Detroit, Mich.
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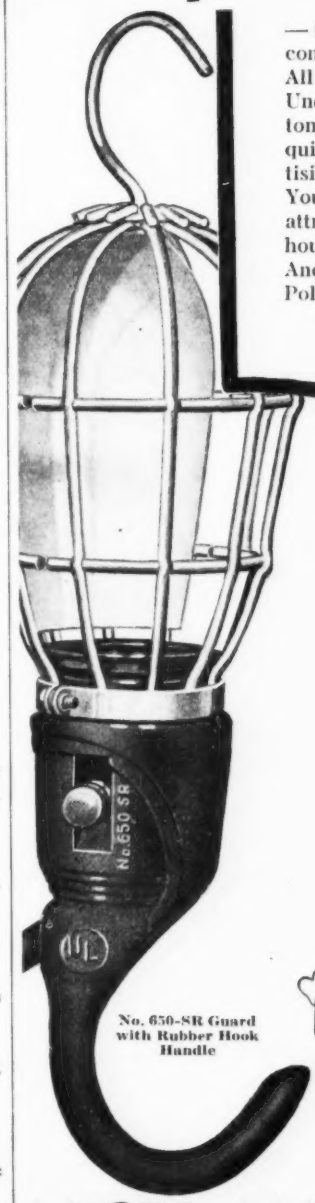
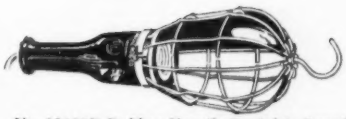
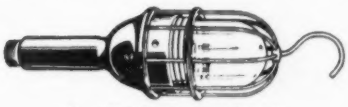


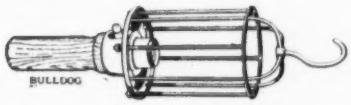
No. 650-SR Guard with Rubber Hook Handle



No. 7000SR Rubber Handle Portable Guard



No. 3000 Vaporproof Guard



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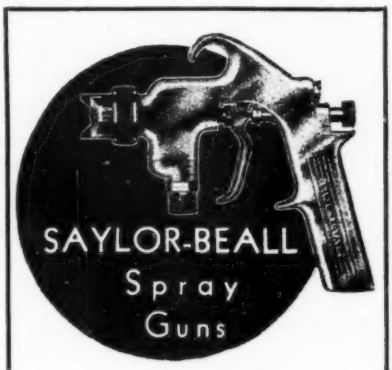

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Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
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Geuder, Paeschke & Frey Co., Milwaukee.
Gustafson & Scott Mfg. Co., Chicago, Ill.
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Safety Equipment Service Co., Cleveland.
Tally-Meter Co., Norwich, Conn.

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Heston & Anderson, Fairfield, Iowa.
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Rogers, Samuel C., & Co., Buffalo, N. Y.

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(See "Air Guns")

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DeVilbiss Co., The, Toledo, Ohio.
Dover Stamping & Mfg. Co., Cambridge, Mass.
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Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
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United States Air Compressor Co., Cleveland, Ohio.

Guns, Metal Spraying

(See "Metallizing Equipment")

Guns, Paint Spraying

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Brunner Manufacturing Co., Utica, N. Y.
Burning Brand Co., Chicago, Ill.
DeVilbiss Co., The, Toledo, Ohio.
Electric Sprayit Co., The, Milwaukee, Wis.
Gast Mfg. Co., The, Bridgman, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
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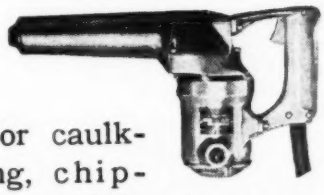

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Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Mueller Co., Decatur, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.

Hammers, Carpenters'

American Fork & Hoe Co., Cleveland, Ohio.
Estwing Mfg. Co., Rockford, Ill.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago.
Vlchek Tool Co., The, Cleveland, Ohio.

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Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago.
Vulcan Tool Mfg. Co., Quincy, Mass.

Hammers, Copper

Bunting Brass & Bronze Co., The, Chicago, Ill. (Copper bronze)
Greene, Tweed & Co., New York, N. Y.
Harris, Arthur, & Co., Chicago, Illinois.
Hays Manufacturing Co., Erie, Pa. (Also bronze)
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Mueller Co., Decatur, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
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Williams, E. A., & Son, Inc., Jersey City, N. J.

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American Hoist & Derrick Co., St. Paul, Minn.
Billings & Spencer Co., The, Hartford, Conn.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Industrial Brownhoist Corp., Cleveland, O.

Hammers, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Blacker Engineering Corp., New York.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Pneumatic Tool Co., New York.
Industrial Brownhoist Corp., Cleveland, O.
Milwaukee Electric Tool Corp., Milwaukee.
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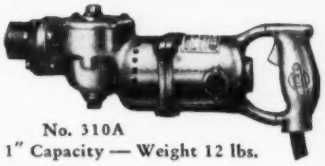

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Maydole, David, Tool Corp., Norwich, N. Y.
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Prentiss Vise Co., New York, N. Y.
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American Fork & Hoe Co., Cleveland, Ohio.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Estwing Mfg. Co., Rockford, Ill.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
U. S. Hame Co., Buffalo, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago.

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Goodrich, B. F., Co., The, Akron, Ohio (Rubber)
Greene, Tweed & Co., New York, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Rockwood Mfg. Co., Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Swett, A. L., Iron Works, Medina, N. Y.

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Cleveland Pneumatic Tool Co., The, Cleveland.
Cleveland Rock Drill Co., The, Cleveland.
Dallett Co., The, Philadelphia, Pa.
Heller Brothers Co., Newark, N. J.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

Hammers, Power

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Chicago Expansion Bolt Co., Chicago, Ill.
Construction Machinery Co., Waterloo, Ia.
Independent Pneumatic Tool Co., Chicago.
Industrial Brownhoist Corp., Cleveland, O.
Ingersoll-Rand Co., New York, N. Y.
Millers Falls Co., Greenfield, Mass.
Moloch Foundry & Machine Co., Kaukauna, Wis.
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Hammers, Riveting

American Fork & Hoe Co., Cleveland, Ohio.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
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Maydole, David, Tool Corp., Norwich, N. Y.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
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Vaughan & Bushnell Mfg. Co., Chicago.
Vulcan Tool Mfg. Co., Quincy, Mass.
Whitney Metal Tool Co., Rockford, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.

Hammers, Saw Setting

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Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
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(See "Sledges, Mauls or Striking Hammers")

Hammers, Tinners'

American Fork & Hoe Co., Cleveland, Ohio.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago.
Whitney Metal Tool Co., Rockford, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.

Hand Screws

(See "Screws, Hand")

Handholes, Boiler and Tank

(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

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American Handle Co., Jonesboro, Ark.
Gallup-Ruffing Handle Co., The, Norwalk, Ohio.
Link, O. P., Handle Co., Salem, Ind.
Strock, L. W., & Co., Bethlehem, Pa.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, Ohio.

Handles, Balance Crank

Gallup-Ruffing Handle Co., The, Norwalk, Ohio.
Piqua Munising Wood Products Co., The, Piqua, Ohio.
Warren Handle Works Co., Cortland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Handles, Brush and Broom

Peterson, F. W., Co., New York, N. Y.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Warren Handle Works Co., Cortland, Ohio.

Handles—File, Chisel, Etc.

Disston, Henry, & Sons, Inc., Tacony, Philadelphia.
Gallup-Ruffing Handle Co., The, Norwalk, Ohio. (Bit brace handles and knobs)
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Kaalot Mfg. Co., The, Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Nicholson File Co., Providence, R. I.
Osgood, J. L., Mach. & Tool Co., Buffalo.
Parker-Kalon Corp., New York, N. Y. (File handles)
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Rowe, Henry, Mfg. Co., Newaygo, Mich.
Strock, L. W., & Co., Bethlehem, Pa.
Tuck Mfg. Co., Brockton, Mass.
Warren Handle Works Co., Cortland, Ohio.
Washburn Co., The, Worcester, Mass.
Wave Cut File & Tool Corp., New York.

Handles, Machine

American Handle Co., Jonesboro, Ark.
Gallup-Ruffing Handle Co., The, Norwalk, Ohio.
Link, O. P., Handle Co., Salem, Ind.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Handles, Pick

American Handle Co., Jonesboro, Ark.
Gallup-Ruffing Handle Co., The, Norwalk, Ohio.
Link, O. P., Handle Co., Salem, Ind.
Strock, L. W., & Co., Bethlehem, Pa.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, O.

Handles, Portable Electric Lamp

Euclid Rubber Co., Cleveland, Ohio.
Peterson, F. W., Co., New York, N. Y.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.

Handles, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia.
Ohlen-Bishop Co., The, Columbus, Ohio.
Peterson, F. W., Co., New York, N. Y.
Simonds Saw & Steel Co., Fitchburg, Mass.

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Hubbard & Co., Pittsburgh, Pa.
Ingersoll Steel & Disc Co., Newcastle, Ind.
Leach Co., Oshkosh, Wis.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Warren Handle Works Co., Cortland, Ohio.

Handles, Sledge

American Handle Co., Jonesboro, Ark.
Gallup-Ruffing Handle Co., The, Norwalk, Ohio.
Heller Brothers Co., Newark, N. J.
Link, O. P., Handle Co., Salem, Ind.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, Ohio.

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Kaalot Mfg. Co., The, Chicago, Ill.
Osgood, J. L., Machinery & Tool Co., Inc., Buffalo, N. Y.
Parker-Kalon Corp., New York, N. Y.
Peterson, F. W., Co., New York, N. Y.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.

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Screw-on . . Stay-on

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Strock, L. W., & Co., Bethlehem, Pa.
Unique Manufacturing Co., Inc., Chicago.
Warren Handle Works Co., Cortland, Ohio.

Handles, Valve

(See "Wheels, Valve")

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Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hangers, Belt Shifter

Allis-Chalmers Manufacturing Co., West Allis, Wis.
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Chicago Pulley & Shafting Co., Chicago.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Raniville, F., Co., Grand Rapids, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
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Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Countershaft

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry & Machine Co., Manheim, Pa.
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Chicago Pulley & Shafting Co., Chicago, Ill.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Dick, R. & J., Co., Inc., Passaic, N. J,
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
S.K.F. Industries, Inc., Philadelphia, Pa.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Walker-Turner Co., Inc., Plainfield, N. J.
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Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers and Tracks, Door

Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Stanley Works, The, New Britain, Conn.
Starline, Inc., Harvard, Ill.
Western Products, Inc., Newcastle, Ind.

Hangers, Fire Door

Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Western Products, Inc., Newcastle, Ind.

Hangers, Head Shaft

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edgemont Machine Co., The, Dayton, O.
Falls Clutch & Machinery Co., Cuyahoga Falls, Ohio.
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Washburn Co., The, Worcester, Mass.

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(See "Chain, Pipe Hanging")

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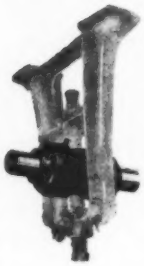
UMI

FAFNIR

HANGER BOXES



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The Lineshaft or Hanger Box is installed as a unit as supplied, there being no internal adjustments to make, since there are no sleeves or adapters. Mountings consist simply of sliding the box and two self-locking collars over the shaft end into the frame, turning down the frame bolt and tightening the collars. No stationary part of a Fafnir Lineshaft Box comes in contact with the shaft, a feature which eliminates the possibility of shaft scoring.

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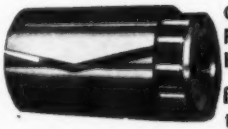

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(See "Staples and Hasps")

Hatchets

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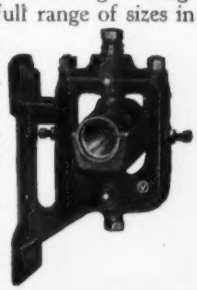

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Heads, Grinding and Polishing

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Millers Falls Co., Greenfield, Mass.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Heads, Spray

Paasche Airbrush Co., Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Yarnall-Waring Co., Philadelphia, Pa.

Heads, Sprinkler

Grinnell Co., Inc., Providence, R. I.
Puro Sanitary Fountain Co., Haydenville, Mass.

Heads, Tapping, Multiple Spindle

Ettco Tool Co., Brooklyn, N. Y.

Heads, Turret

Gisholt Machine Co., Madison, Wis.

Heads, Working

(See "Pumps, Deep Well")

Heaters, Asphalt and Tar

Aeroil Burner Co., Inc., West New York, N. J.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Unique Manufacturing Co., Inc., Chicago.

Heaters, Concrete

Aeroil Burner Co., Inc., West New York, N. J.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Trent, Harold E., Co., Philadelphia, Pa.
Unique Manufacturing Co., Inc., Chicago.

Heaters, Feed Water

Harrisburg Steel Corp., Harrisburg, Pa.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.
Worthington Pump & Machinery Corp., Harrison, N. J.

Heaters, Fuel Oil

Bernz, Otto, Co., Inc., Rochester, N. Y.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis, Minn.
Hauck Manufacturing Co., Brooklyn, N. Y.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Watts Regulator Co., Lawrence, Mass.

Heaters, Garage

American Radiator Co., New York, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Crane Co., Chicago, Ill.
Electric Vacuum Cleaner Co., Inc., Niagara Falls, N. Y.
Keystone Boiler & Foundry Co., Landisville, Pa.
Metal Specialties Mfg. Co., Chicago, Ill.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Nason Manufacturing Co., New York, N. Y.
National Radiator Corp., Johnstown, Pa.
Russell Electric Co., Chicago, Ill.

Heaters and Pots, Glue

Aeroil Burner Co., Inc., West New York, N. J.
Black & Decker Mfg. Co., The, Towson, Md. (Electric)
Cutler-Hammer, Inc., Milwaukee, Wis.
Dallett Co., The, Philadelphia, Pa.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Hollands Mfg. Co., Erie, Pa.
Instantaneous Glue Converter Co., Cincinnati, Ohio.
Nason Manufacturing Co., New York, N. Y.

VAN DORN

Electric Glue Pot

Thermostatic control, designed to maintain temperature.

2-quart capacity

The Van Dorn Electric Tool Co.
Towson, Md.

Pancoast, Henry B., Co., Philadelphia, Pa.
Russell Electric Co., Chicago, Ill. (Electric)
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Van Dorn Electric Tool Co., The, Towson, Md. (Electric)
Vulcan Electric Co., Lynn, Mass.
Wallace, J. D., & Co., Chicago. (Electric)

Heaters, Industrial, Electric

American Blower Corp., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Cutler-Hammer, Inc., Milwaukee, Wis.
Electric Air Heater Div., American Foundry Equipment Co., Mishawaka, Ind.
General Electric Co., Schenectady, N. Y.
National Fan & Blower Corp., Chicago, Ill.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Trent, Harold E., Co., Philadelphia, Pa.
Vulcan Electric Co., Lynn, Mass.

Heaters, Ladle

Diamond Iron Works, Inc., Minneapolis, Minn.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Turner Brass Works, The, Sycamore, Ill.
Vulcan Electric Co., Lynn, Mass.

Heaters, Melting Pot, Electric

Cutler-Hammer, Inc., Milwaukee, Wis.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Trent, Harold E., Co., Philadelphia, Pa.
Vulcan Electric Co., Lynn, Mass.

Heaters, Pipe, Electric

Black & Decker Mfg. Co., The, Towson, Md.
General Electric Co., Schenectady, N. Y.
Trent, Harold E., Co., Philadelphia, Pa.
Van Dorn Electric Tool Co., The, Towson, Md.

Heaters, Rivet and Metal, Electric

American Car and Foundry Co., New York.
Cutler-Hammer, Inc., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis, Minn.
General Electric Co., Schenectady, N. Y.
R. S. Products Corp., Philadelphia.

Heaters, Tool

Aeroil Burner Co., Inc., West New York, N. J.
G. M. Laboratories, Inc., Chicago, Ill. (Soldering iron stands)
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
R. S. Products Corp., Philadelphia.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

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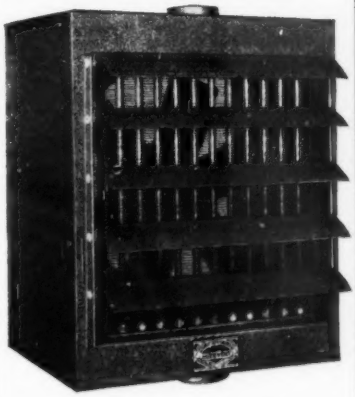
AUTOVENT Steam
SUPER-TYPE
UNIT HEATERS



● Made in various sizes, this suspended type heater forces the air circulation and directs the warm air to lower part of room where needed. Heating element is of flat copper fins, attached to seamless, drawn copper tubes. Tubes run vertically for perfect drainage. No welded or brazed joints in coil or header. Fans have non-overloading power feature and motor is furnished to requirement. Write for bulletin No. 101.

AUTOVENT FAN & BLOWER CO.
1807-23 N. Kostner Ave., Chicago, Illinois

Heaters, Unit

American Blower Corp., Detroit, Mich.
Autovent Fan & Blower Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Electric Air Heater Div., American Foundry Equipment Co., Mishawaka, Ind.
Grinnell Co., Inc., Providence, R. I.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Modine Mfg. Co., Racine, Wis.
National Fan & Blower Corp., Chicago, Ill. (Gas, steam and electric)
National Radiator Corp., Johnstown, Pa.
Reznor Mfg. Co., Mercer, Pa. (Gas fired)
Russell Electric Co., Chicago. (Electric)
Sturtevant, B. F., Co., Boston, Mass.
Unit Heater & Cooler Co., Wausau, Wis.
Vulcan Electric Co., Lynn, Mass.

Heaters, Unit, Electric

Autovent Fan & Blower Co., Chicago, Ill.
Electric Air Heater Div., American Foundry Equipment Co., Mishawaka, Ind.

ELECTROMODE
ELECTRIC
UNIT AIR
HEATERS
Send for Complete data
Book No. 337
ELECTRIC AIR HEATER CO., DIV.
American Foundry Equipment Co.
700 Byrkit St. MISHAWAKA, IND.

SANITARY -- SAFE -- STRONG

★ Easily taken apart for complete sterilization—no exposed metal parts—when Helmet is thrown back a nod drops it—rivetless face piece made from one solid fibre sheet—rubber lens holder reduces breakage—available in helmet and handshield types—stronger than any shield on market.

C. H. DOCKSON CO.
2885 E. GRAND BLVD.
DETROIT, MICH.

Trent, Harold E., Co., Philadelphia, Pa.
Vulcan Electric Co., Lynn, Mass.
Wiegand, E. L., Co., Pittsburgh, Pa.

Heaters, Water, Auxiliary, for Furnaces and Boilers

American Radiator Co., New York, N. Y.
Bastian-Morley Co., LaPorte, Ind.
Crane Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Marion Machine Foundry & Supply Co., Marion, Ind.
Metal Saw and Machine Co., Springfield, Mass.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Sands Mfg. Co., The, Cleveland, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Watts Regulator Co., Lawrence, Mass.

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We want live, aggressive mill supply houses who see the opportunity to develop sales on a unit heater, to investigate

GRID
UNIT HEATER

Backed by 8 heating seasons without failures — patented — all-cast aluminum heating sections—not affected by electrolysis—no leaks or breakdowns.

THE UNIT HEATER & COOLER CO.
WAUSAU, WISCONSIN
Offices in all principal cities

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Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Morley Co., LaPorte, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Helmets, Ammonia and Smoke

American-LaFrance and Foamite Corp., Elmira, N. Y.
Chicago Eye Shield Co., Chicago, Ill.
Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland

Helmets, Arc Welding

Air Reduction Sales Co., New York, N. Y.
Buegeleisen, Harry, Brooklyn, N. Y.
Chicago Eye Shield Co., Chicago, Ill.
Dockson, C. H. Co., Detroit, Mich.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hobart Bros. Co., Troy, Ohio.
Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.
Sight Feed Generator Co., Richmond, Ind.
Strauss & Buegeleisen, Brooklyn, N. Y.
Torchweld Equipment Co., Chicago, Ill.
Willson Products, Inc., Reading, Pa.

Helmets, Miners' Rescue

Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.

Helmets, Sand Blast

Chicago Eye Shield Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Ruemelin Mfg. Co., Milwaukee, Wis.
Safety Equipment Service Co., Cleveland.
Willson Products, Inc., Reading, Pa.

Hickeys, Pipe

(See "Benders, Conduit and Pipe")

Hinges, Steel Strap and "T"

(See "Butts and Hinges, Steel")

Hobs—Gear, Spur, Spiral and Worm

Barber-Colman Co., Rockford, Ill.
Bath, John & Co., Inc., Worcester, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Illinois Tool Works, Chicago, Ill.
National Tool Co., The, Cleveland, Ohio.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.

Hobs, Sprocket

Barber-Colman Co., Rockford, Ill.
Bath, John & Co., Inc., Worcester, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Illinois Tool Works, Chicago, Ill.
National Tool Co., The, Cleveland, Ohio.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Hods, Brick and Mortar

Cleveland Wire Spring Co., The, Cleveland, Ohio.
Lansing Co., Lansing, Mich.
Littleford Bros., Cincinnati, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.

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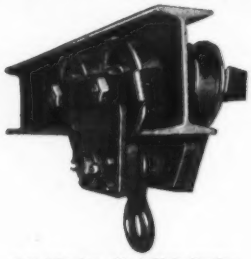
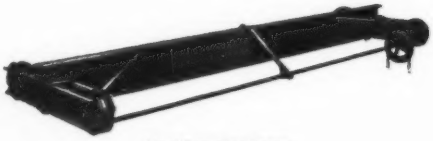
"AUTO-BLOC"
The Jewel Among Hoists
Timken Bearing Equipped

Round
HOISTS and HOISTING EQUIPMENT



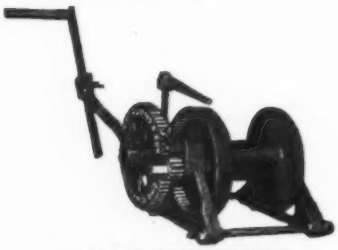
Self-Aligning, Steel-Plate Trolleys
Roller Bearing

"LIFTABOUT"
Lightweight, High-Speed Efficiency Hoist (Part Aluminum)



Hand Traveling Cranes
Timken Bearing Equipped

"SUPERIOR"
Powerful, High-Speed Spur-Geared Hoist
Ball Bearing



No. 99 ALL-STEEL WINCH
5 Tons Capacity—2 Speeds
Cut Steel Gears Throughout

"NAVY SCREW-GEARED"
Rugged, Smooth-Operating Popular Outdoor Hoist

DAVID ROUND & SON
CLEVELAND, OHIO

Offices—BRIDGEPORT, CONN., NEW YORK, N. Y., CHICAGO, ILL., SEATTLE, WASH. SO. SAN FRANCISCO, CALIF., LOS ANGELES, CALIF.

Manufacturers of Chain & Hoists for Every Purpose

Hoes, Grub
(See "Picks, Mattocks and Grub Hoes")

Hoes, Rakes and Forks
Collins Co., The, Collinsville, Conn.

Hoists, Belt Power
American Hoist & Derrick Co., St. Paul, Minn.
Beaumont, R. H., Co., Philadelphia, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cleveland Wire Spring Co., The, Cleveland, Ohio.
Construction Machinery Co., Waterloo, Ia.
Dake Engine Co., Grand Haven, Mich.
Domestic Engine & Pump Co., Shippensburg, Pa.
Fridy Hoist and Machinery Co., Mountville, Pa.
Havana Mfg. Co., Havana, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jordan Bros., Inc., New York, N. Y.
Loane Engineering Co., Baltimore, Md.
Mason, Volney W., & Co., Boston, Mass.
O. K. Clutch & Machinery Co., Columbia, Pa.
Orr & Sembower, Inc., Reading, Pa.
Schultz, A. L., & Son, Chicago, Ill.

Hoists, Chain
American Hoist & Derrick Co., St. Paul, Minn.
Boston & Lockport Block Co., East Boston, Mass.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.

(Continued on page 189)

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MILL SUPPLIES
"The Magazine for Distributors and Their Salesmen"

10 REASONS WHY BUYERS SELECT YALE CHAIN HOISTS

◆

Because . . . Yale Chain Hoists have an international reputation for QUALITY and that quality is based on the outstanding features of construction, as follows:

1 Heavy forged steel safety hook and cross head designed to withstand shock.

2 Heavy wrought steel suspension plates support the load between the top hook cross head and load sheave.

3 The load sheave on which the load is lifted is a massive special analysis steel casting.

4 The driving pinion is a one-piece forging of special steel.

5 Ball bearings upon which the load sheave is mounted are of high carbon chrome alloy steel running in chrome vanadium steel races.

6 A continuous and adjustable hand chain guide prevents snagging—with a tensile strength of 50,000 lbs.

7 The load chain is of steel, welded and heat treated.

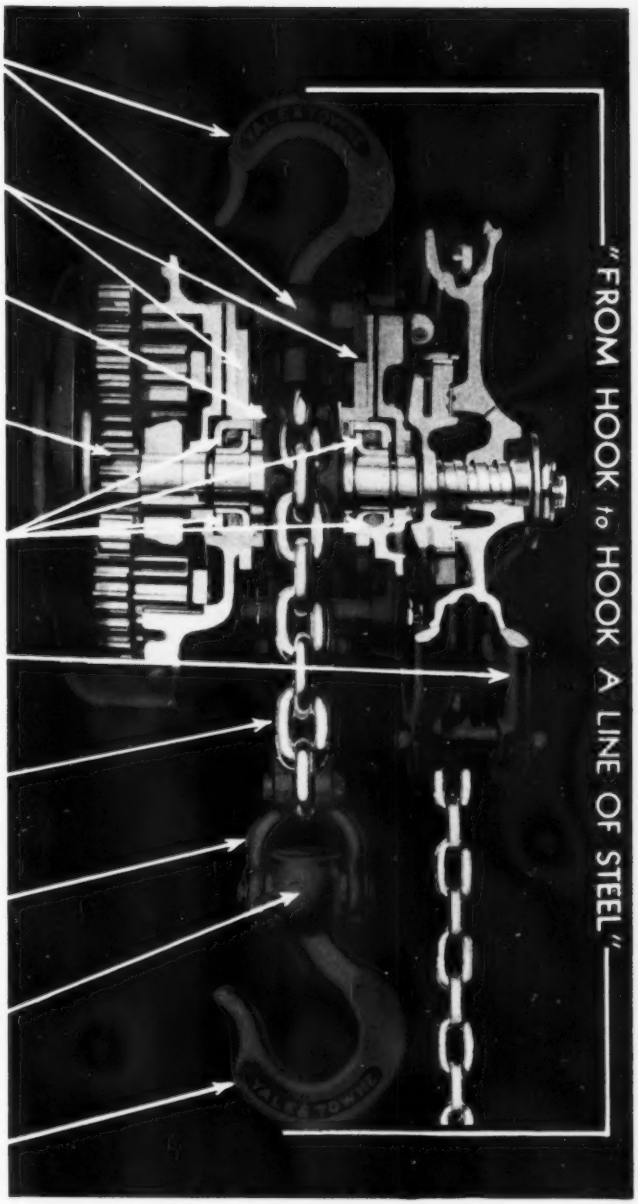
8 Drop forged two-piece shackles with heat-treated suspension pin permit changing or replacing load chain without welding.

9 Lower hook is equipped with heavy duty ball bearing, completely enclosed, packed in grease, requires no further lubrication.

10 Steel safety hook opens slowly without fracture before any other part of the hoist is overstrained—protects operator and load.

Note: All Yale Hoists are tested to 50% overload—long ton rating, 2240 lbs.

◆



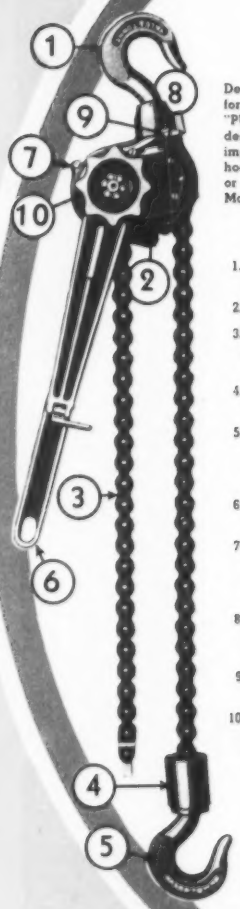
Capacities 300 Lbs. to 40 Tons

TRADE YALE MARK

THE YALE & TOWNE MFG. CO.
PHILADELPHIA DIVISION
Philadelphia, Pa., U. S. A.

UMI

YALE HOISTS "Industry's MUSCLES of STEEL"



THE PUL-LIFT

A HOIST THAT PULLS AND LIFTS
Capacities—3/4, 1 1/2, 3 and 6 Tons

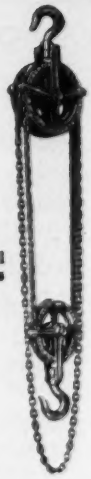
Designed by Yale Engineers to meet the demand for a general purpose tool for operation in both horizontal and vertical positions. The weight of the "PUL-LIFT" is only about one-quarter that of conventional type hoists. It is designed to be handled and operated in close quarters and embodies these important features: Light Weight—Close headroom or distance between hooks—Simple and Efficient operation—Self actuated load brakes—Ratchet or universal action for use in congested quarters—Easy operation with Maximum Speed.

THESE OUTSTANDING FEATURES INDICATE WHY THE PUL-LIFT IS SUPERIOR

1. TOP HOOK—Drop forged steel—heat treated. Hook will open slowly without fracture under severe overload.
2. HOUSING—Malleable iron of high tensile strength.
3. CHAIN—Special design free-rolling roller chain, with links, rollers, bushings, and pins all heat-treated steel. This chain has an ultimate strength of approximately five times the rated capacity.
4. BOTTOM HOOK SWIVEL BAND—Steel tubing fitting around bottom swivel and staked to insure a solid connection.
5. BOTTOM HOOK—Drop forged steel, heat-treated and specially designed to open slowly without fracture under severe overload. This provides a warning of danger and permits releasing the load without injury to operator, to the load, or to the mechanism.
6. OPERATING HANDLE—Malleable iron of high tensile strength. Short radius permitting operation in cramped quarters.
7. LOAD BRAKE—Load brake is screw and disc type, self-actuating, of ample area, with the ratio of brake pressure increasing in proportion to the increase in load. Fully enclosed. All parts are made of steel except friction washer.
8. LOAD SPROCKET—Enclosed in housing—Cut from solid blank of alloy steel, accurately machined for permanent and close alignment, and heat-treated.
9. LUBRICATION—Lubrication is by oil holes in housing, provided with ball valve oil hole covers—readily accessible.
10. HANDWHEEL—The handwheel is interlocked with the load brake, permitting the brake to be released and freeing the chain so it may be operated either by hand or directly on the chain without the use of the ratchet lever.

THE PIGMY HOIST with a GIANT'S POWER

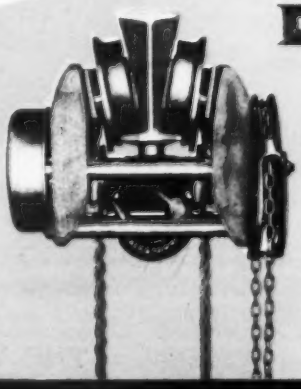
Yale Screw Geared Hoist—capacities 1/4 to 5 Tons.



Yale Differential Hoist—capacities 1/4 to 2 tons.

SPUR - GEARED CLEVIS HOIST—effects a reduction in the headroom dimensions as compared with the Standard Hook type hoist with trolley.

The SPUR-GEARED TWIN HOOK HOIST—functions through one hand chain which simultaneously operates two load hooks, enabling one man to lift long loads evenly.



RAIL HUGGER CHAIN HOIST—provides the shortest headroom available in a hand hoist combination. Headroom occupied is approximately 75% less than standard hook type hoist with trolley. Furnished in either plain or geared type.

SPUR-GEARED EXTENDED HAND WHEEL HOIST — is designed for use where it is desirable to keep the operator or Hoisting Chain clear of the load.

P 280-11-30-25-250.

LITHO. IN U. S. A.

THE YALE & TOWNE MANUFACTURING COMPANY

UMI

Hoists, Chain

(Continued from page 186)

Columbus McKinnon Chain Corp., Tonawanda, N. Y. (Including differential)
Conco Engineering Works, Mendota, Ill.
Dallett Co., The, Philadelphia, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
McMillan's, W. H., Sons, New York, N. Y.
Maris Brothers, Inc., Philadelphia, Pa.
Milwaukee Electric Tool Corp., Milwaukee.
Osborn Manufacturing Co., The, Cleveland.

(Continued on page 190)

Extra Services for Readers

Mill Supplies publishes each year three issues which may be regarded as "special," in that they represent an extra service to our readers.

IN MAY **Mill Supplies** publishes an issue for the Annual Triple Convention of the industrial supply industry. The editorial material of this issue ties in with the subjects discussed by convention speakers, and copies are distributed to everyone attending the convention, in addition to the usual circulation.

IN JUNE **Mill Supplies** publishes a "Post Convention Issue," which reports the convention in detail.

IN SEPTEMBER **Mill Supplies** publishes a special marketing issue. For example, in 1935, the September issue contained, in addition to its usual features on new products and industry news, 148 marketing charts in a special section. These charts showed major markets, good markets, and officials usually responsible for specifying and purchasing 128 typical items of industrial supplies and equipment. In 1936 the September issue was devoted to a special presentation of the mill supply distributor's function in industry.

These extra services, in addition to **Mill Supplies'** year-round editorial job, make this publication invaluable to the mill supply salesman and executive.

MILL SUPPLIES
330 West 42nd St.,
New York, N. Y.

FORD TRIBLOCS

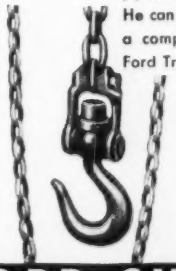
FOR LONG-LASTING POWER AND SPEED

• The Ford Tribloc of today is the outcome of long experience in load lifting. Weaknesses and wear points of ordinary hoists were located. Resistances were built up to oppose them. So the Ford Tribloc is a hoist of remarkable durability.

The main castings are of certified malleable iron. They stand far more use and abuse than grey iron. The load chain is die-formed, side-welded electrically, and is of heat-treated high carbon steel. Hooks are drop-forged.

Ball bearing load-hook makes turning easy and prevents load chain torsion and twisting friction in load sheave. Hand chain guide keeps the chain straight and makes it impossible for chain to ride out of hand wheel pockets.

Ask your jobber. Through him get these safe, fast smooth-working Ford Triblocs. They come in capacities from ¼ ton to 40 tons. He can also furnish a complete line of Ford Trolleys.



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FORD CHAIN BLOCK COMPANY
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AN ASSOCIATE OF
AMERICAN CHAIN COMPANY, INC.

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Regularly for

SALES FACTS

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MILL SUPPLIES

The Magazine for
DISTRIBUTORS and Their SALESMEN

330 W. 42nd St. New York City

Hoists, Chain

(Continued from page 189)

Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.

(Continued on page 192)

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Every Effort Has Been Made

to Make

The Directory Edition

as Complete and
Up-to-Date
as Possible

However, There May Be
Instances Where You Do
Not Find the
Information You Are
Seeking

In Such Cases, Write

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And We Will Do Everything
We Can to Secure It for You

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RATCHET LEVER - - - - SPUR GEAR - - - - ELECTRIC

A Complete Line

Twin Lever
Rope Pull
Gravity Lowering Hoist

The Coffing "Challenger" is a new idea in hoists. It uses Twin levers, with rope pull (operating on the face of disc wheels by friction grip) to lift the load, gravity to lower it. Lowering speed is completely controlled by a simple governor. The faster operation possible with this hoist slashes hoisting costs. Available in ¼, ½, 1, and 2 ton capacities.

Ratchet Lever

¾, 1½, 3, 4½, and 6 ton capacity

Light—compact—portable and powerful

For Mill and Factory, Telephone, Power and Light, Mines, and Oil Fields, Railroads and Ships—any place for lifting or pulling. These hoists can be used either end up. Because of their compactness are easily used in close quarters. Furnished with any length lift or pull.

MODEL RGL

Ratchet lever gravity lowering type 2, 4, and 6 ton capacity

The new Coffing Model R-G-L is particularly adapted to raising and lowering pipe in the oil fields. It has been tested and satisfactorily approved by most of the pipe line companies in the United States. This hoist greatly reduces operating costs, and costs much less than the old method used by the pipe line companies. It is also adapted to various other lifts and pulls, and is factory tested to 100% overload. The new Coffing Model R-G-L will outsell because it outperforms.

Electric Hoist

Available in ¼, ½, 1, and 2 ton sizes. Since the weight of even the largest capacity is only 85 lbs., they can be transferred from one place to another by only one man. Main features: automatic balancing hook; push-button control; safety limit switch; positive automatic brake; universal type motor coupling.

Users appreciate these scientifically designed, easy performing, and dependable hoists that operate safely, quickly, and economically. They like the built-in efficiency and recognize the opportunity they offer for low-cost performance.

This line is building hoist sales for many distributors. It offers satisfactory sales and profits for you.

Details regarding Coffing products and their advantages, distributor terms, and the sales assistance provided by factory-trained salesmen, will be gladly sent at your request.

COFFING HOIST COMPANY

OFFICE AND FACTORY: 313-319 VAN BUREN STREET

DANVILLE, ILLINOIS

Hoists, Chain

(Continued from page 190)

Sampson Tool Co., Inc., New York, N. Y.
Speidel Elevator Corp., Reading, Pa.
Starline Inc., Harvard, Ill.
Union Manufacturing Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Chain, Gravity Lowering

Coffing Hoist Co., Danville, Ill.
Osborn Manufacturing Co., The, Cleveland, Ohio.

Hoists, Coal Handling

American Engineering Co., Philadelphia, Pa.
American Hoist & Derrick Co., St. Paul, Minn.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Fairfield Engineering Co., The, Marion, O.
Fridy Hoist and Machinery Co., Mountville, Pa.
Godfrey Conveyor Co., Elkhart, Ind.
Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mason, Volney W., & Co., Boston, Mass.
Miller Machine Works, Springs, Pa.
Osborn Manufacturing Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shephard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Yale & Towne Mfg. Co. The (Philadelphia Division), Philadelphia, Pa.

Hoists, Contractors'

American Hoist & Derrick Co., St. Paul, Minn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Dake Engine Co., Grand Haven, Mich.
Domestic Engine & Pump Co., Shippensburg, Pa.
Fridy Hoist and Machinery Co., Mountville, Pa.
Godfrey Conveyor Co., Elkhart, Ind.
Hobbs, Clinton E., Co., Boston, Mass.
Ingersoll-Rand Co., New York, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Lansing Co., Lansing, Mich.
Loane Engineering Co., Baltimore, Md.
McMillan's, W. H., Sons, New York, N. Y.
Mason, Volney W., & Co., Boston, Mass.
Moore-Master Mfg. Co., Chicago, Ill.
O. K. Clutch & Machinery Co., Columbia, Pa.
Orr & Sembower, Inc., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Stimmel Winch Company, Long Island City, N. Y.
Union Manufacturing Co., New Britain, Conn.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Another Service to the Field

MILL SUPPLIES magazine considers the service it provides distributors, their salesmen and manufacturers an integral and vitally important part of its activities. This service, extending in various directions, is constantly expanding and will continue to expand month after month and year after year.

This issue of MILL SUPPLIES—the Directory Edition—is one of the services offered to industrial supply houses throughout the country. At your finger tips at all times, it is an invaluable aid to you in your buying activities—another weld in the chain that makes the supply house an indispensable factor in the distribution of industrial supplies and equipment, machinery and tools to the industrial user.

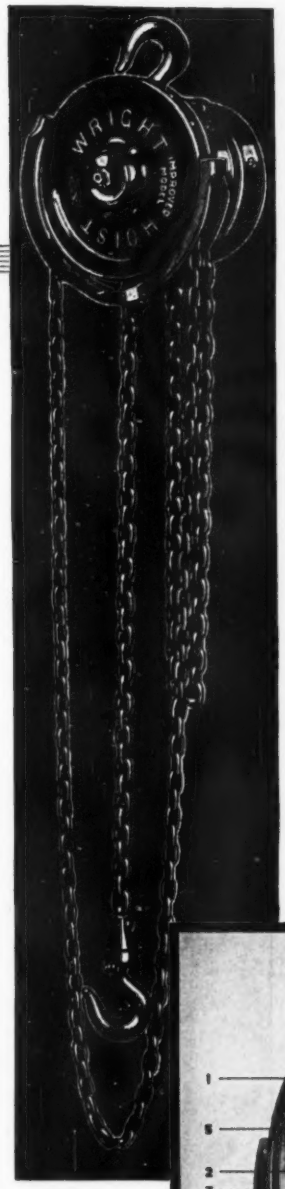
MILL SUPPLIES

"The Magazine for Distributors and Their Salesmen"

No other so RIGHT

as the

WRIGHT



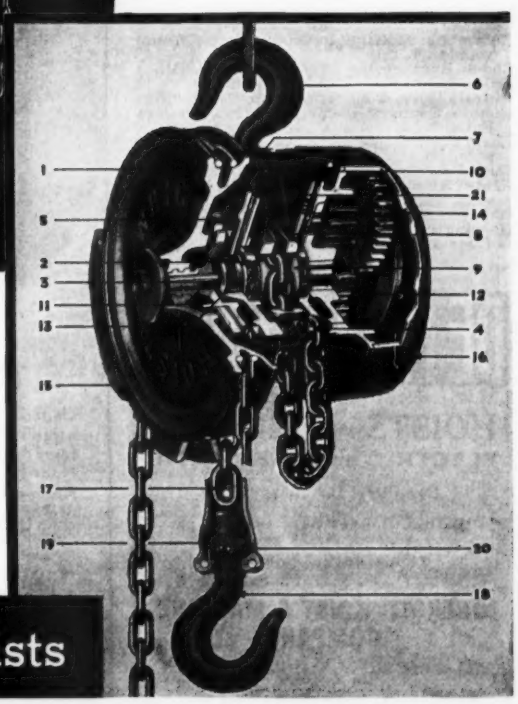
1 Zinc Coated Finish
2 Load Wheel Bearings
3 Positive Grease Seals
4 Dead-End Attachment
5 Hardened Pawl Tip
6 Steel Top Hook
7 Drop-Forged Cross Head
8 Safety Load Chain Guard
9 Electric Steel Load Wheel
10 Oil Tubes
11 Main Driving Spindle
12 Bronzed Bushed Load Sheave
13 Driving Spindle Bearing
14 Steel Suspension Plates
15 Non-Fouling Hand Chain Guide
16 Gear Cover
17 Special Analysis Steel Chain
18 Drop-Forged Bottom Hook
19 Detachable Steel Coupling
20 Thrust Bearing on Bottom Hook
21 Oil Hole Covers

No other with so many features...

● Here is a modernized chain hoist that should be a "duck soup" sales proposition for any industrial distributor's salesman. Why? Simply because it is RIGHT in every respect; because it possesses so many real down-to-earth sales points; because it is a WRIGHT Hoist—and there is no better.

Study the list of features on this page. Every one of them is a talking point. Some of them are exclusive with the Wright. For instance: Only Wright offers the zinc coated finish; precision ball bearings in the load wheel; a safety load chain guard that prevents chain from riding out of pockets; ball bearings in the driving spindle bearing—these are only four of the many features which make the Wright Hoist the right hoist for industrial distributors to sell.

Complete sales data which covers the Wright Improved High Speed Hoist in detail will be sent upon request to industrial distributors, their salesmen and to users.



ACCO

WRIGHT MANUFACTURING DIVISION OF THE AMERICAN CHAIN COMPANY, *Incorporated*
YORK, PENNSYLVANIA

In Business for Your Safety

WRIGHT *Improved* High Speed Hoists

Ingersoll-Rand Co., New York, N. Y.
Lewis-Shepard Co., Boston, Mass.
Maris Brothers, Inc., Philadelphia, Pa.
Mason, Volney W., & Co., Boston, Mass.
Orr & Sembower, Inc., Reading, Pa.
Osborn Manufacturing Co., The, Cleveland.
Philadelphia Gear Works, Philadelphia, Pa.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Friction

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Beaumont, R. H., Co., Philadelphia, Pa.
Coffing Hoist Co., Danville, Ill.
Construction Machinery Co., Waterloo, Ia.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fridy Hoist and Machinery Co., Mountville, Pa.
Havana Mfg. Co., Havana, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Jaeger Machine Co., The, Columbus, Ohio.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Loane Engineering Co., Baltimore, Md.
Mason, Volney W., & Co., Boston, Mass. (Wool)
Schultz, A. L., & Son, Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Wright Manufacturing Division of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Geared Trolley

American Engineering Co., Philadelphia, Pa.
Chicago Pneumatic Tool Co., New York.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.

Hoists, Electric

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Engineering Co., Philadelphia, Pa.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Coffing Hoist Co., Danville, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Euclid-Armington Corp., Euclid, Ohio.
Fridy Hoist and Machinery Co., Mountville, Pa.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Industrial Brownhoist Corp., Cleveland, O.

DETROIT HOISTS

HOISTS and CRANES
ELECTRIC and PNEUMATIC

Capacity 1/4 to 10 Tons

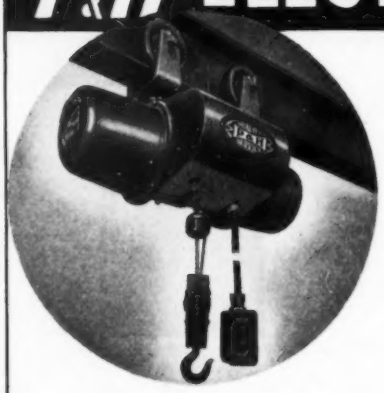
"Detroit Hoists" have been on the market for 32 years.

Thousands in daily use.

DETROIT HOIST & MACHINE COMPANY

8283 Morrow St. DETROIT, MICH.

P&H ELECTRIC HOISTS



The ZIP-LIFT

A live, new opportunity for sales among machine shops, forge shops, foundries, warehouses, etc.—wherever loads from 250 to 750 pounds are handled frequently. A full electric hoist—a low-cost accessory that saves time, makes lifting a one-finger job. Weighs only 100 lbs. Ask for Bulletin H-2.

TYPE "R" HOISTS

Capacities from 500 to 30,000 pounds; lifting heights up to 40 feet with any desired speed. Offered with push-button or pendant rope control; all types of mounting including plain, hand-geared and motor-driven trolleys. There's a proper size and type of P&H Hoist for every handling job. Ask for Bulletin H-5.

Write for full details concerning P&H representation in your territory.

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Established 1884
4538 WEST NATIONAL AVE. MILWAUKEE, WIS.

Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Euclid-Armington Corp., Euclid, Ohio.
Ford Chain Block Co., Philadelphia, Pa.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Industrial Brownhoist Corp., Cleveland.
Ingersoll-Rand Co., New York, N. Y.
Maris Brothers, Inc., Philadelphia, Pa.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Div., Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Speidel Elevator Corp., Reading, Pa.
Union Manufacturing Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Gravity Lowering, Ratchet and Hand Chain

Coffing Hoist Co., Danville, Ill.

Hoists, Hand Power

American Engineering Co., Philadelphia, Pa.
American Hoist & Derrick Co., St. Paul, Minn.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beebe Bros., Seattle, Wash.
Canton Foundry & Machine Co., The, Cleveland, Ohio.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Dake Engine Co., Grand Haven, Mich.
Dallett Co., The, Philadelphia, Pa.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Euclid-Armington Corp., Euclid, Ohio.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Lewis-Shepard Co., Boston, Mass.
Maris Brothers, Inc., Philadelphia, Pa.
Osborn Manufacturing Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Speidel Elevator Corp., Reading, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Union Manufacturing Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Hydraulic

Cardwell Machine Co., The, Richmond, Va.
Columbian Iron Works, Chattanooga, Tenn.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Keckley, O. C., Co., Chicago, Ill.
Lewis-Shepard Co., Boston, Mass.
Ramsey Machinery Co., Portland, Ore.
United States Air Compressor Co., Cleveland, Ohio.
Wood, H. C., Machine Works, San Francisco, Calif.

Hoists, Monorail Trolley

American Engineering Co., Philadelphia, Pa.
American MonoRail Co., Cleveland, Ohio.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Crane and Engineering Co., Wickliffe, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Euclid-Armington Corp., Euclid, Ohio.
Fairfield Engineering Co., The, Marion, O.
Godfrey Conveyor Co., Elkhart, Ind.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Keckley, O. C., Co., Chicago, Ill.
Maris Brothers, Inc., Philadelphia, Pa.
Osborn Manufacturing Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, & Son, Cleveland, Ohio.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Sampson Tool Co., Inc., New York, N. Y.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Union Mfg. Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Pneumatic

Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Hannifin Mfg. Co., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Joyce-Cridland Co., The, Dayton, Ohio.
Keckley, O. C., Co., Chicago, Ill.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.

Hoists, Portable

American Hoist & Derrick Co., St. Paul, Minn.
Canton Foundry & Machine Co., The, Cleveland, Ohio.
Cardwell Machine Co., The, Richmond, Va.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Domestic Engine & Pump Co., Shippensburg, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Euclid-Armington Corp., The, Euclid, Ohio.
Harrington Co., The, Philadelphia, Pa.
Ingersoll-Rand Co., New York, N. Y.
Lewis-Shepard Co., Boston, Mass.
Mason, Volney W., & Co., Boston, Mass.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Speidel Elevator Corp., Reading, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Union Mfg. Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Ratchet Lever

Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Coffing Hoist Co., Danville, Ill.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Wright Mfg. Div. of American Chain Co., York, Pa.

Holders, Bag

Fairbanks Co., The, New York, N. Y.
Mountville Mfg. Co., Mountville, Pa.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Holders for Bit Brace Shank Tools

Ryerson, Joseph T., & Son, Inc., Chicago.

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and I-Beam TROLLEYS

The most practical and economical hoist for handling loads where speed and accurate spotting are important. Costs little more than a chain block. Maintenance cost negligible. Operating cost very reasonable. Send for surveys showing cost and savings effected in many kinds of industries. Capacities, ½ to 10 tons.

Send for new A-4 Bulletin

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Holders, Card, Metal

Bay State Stamping Co., Worcester, Mass.
Detroit Stamping Co., Detroit, Mich.
Haddon Bin Label Co., Haddon Heights, N. J.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Sargent & Co., New Haven, Conn.

Holders, Danger Flag

Coffing Hoist Co., Danville, Ill.
Toledo Pressed Steel Co., The, Toledo, O.

Holders, Die and Tap

Brown & Sharpe Mfg. Co., Providence, R. I.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Chicago Tool & Engineering Co., Chicago.
Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.

Holders, Drill

Armstrong Bros. Tool Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Rawlplug Co., Inc., The, New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Star Expansion Bolt Co., New York, N. Y.

Holders, Electrode, Welders'

Dockson, C. H., Co., Detroit, Mich.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hobart Bros. Co., Troy, Ohio.
Lincoln Electric Co., The, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.

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TOOL HOLDERS

A System of Tools That "SAVES All Forging, 70% Grinding and 90% High Speed Steel"

Over 100 Sizes and Shapes

See our ad "Tools: Turret Lathe and Screw Machine"

The standard cutting tools wherever metal is machined—used in over 96% of the machine shops and tool rooms. Permanent Tools that take cutters of standard high speed steel shapes . . . multi-purpose tools each equal to a complete set of forged tools . . . Tool Holders for every operation on lathes, planers, slotters and shapers.

To mill supply distributors ARMSTRONG TOOL HOLDERS offer an opportunity for unlimited sales and profits.

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New York Sales Office and Warehouse: 199 Lafayette St.
San Francisco London

Safety Equipment Service Co., The, Cleveland, Ohio.
Sight Feed Generator Co., Richmond, Ind.

Holders, Extension Bit

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Holders, File

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Nicholson File Co., Providence, R. I.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Holders, Floating, for Taps, Reamers and Counterbores

Brown & Sharpe Mfg. Co., Providence, R. I.
Gairing Tool Co., The, Detroit, Mich.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.

Holders, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Jiffy Fire Hose Rack Co., New York, N. Y.
Mulconroy Company, Philadelphia, Pa.

Holders, Knurl

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Williams, J. H., & Co., Buffalo, N. Y.

Holders, Nipple

(See "Chucks and Holders, Nipple")

Holders, Tool for Lathes, Planers, Shapers and Boring Machines

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Lovejoy Tool Co., Inc., Springfield, Vt.
Marcy Tool Works, Inc., Putnam, Conn.
O.K. Tool Holder Co., The, Shelton, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Chicago, Ill.
Williams, J. H., & Co., New York, N. Y.

Holders-on, Pneumatic

Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Scully-Jones & Co., Chicago, Ill.

Hoods, Acid, for Head Covering

Chicago Eye Shield Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Gross Rubber Co., Sharon, Pa.
Mine Safety Appliances Co., Pittsburgh, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, Ohio.

Hoods, Buffing and Grinding Wheel

Burt Manufacturing Co., The, Akron, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Safety Equipment Service Co., The, Cleveland, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Hoods and Masks, Dust

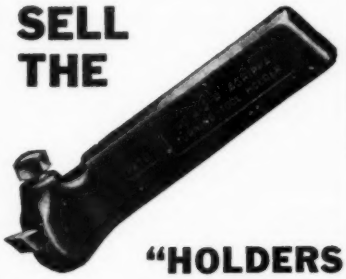
American-LaFrance and Foamite Corp., Elmira, N. Y.
Chicago Eye Shield Co., Chicago.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Gross Rubber Co., Sharon, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Ruemelin Mfg. Co., Milwaukee, Wis.
Safety Equipment Service Co., The, Cleveland, Ohio.

DUST MASKS
RESPIRATORS
SAND BLAST MASKS
WELDING HELMETS

Cesco manufactures a complete line of **Industrial Head and Eye Safety Equipment.** It is a line that offers industrial distributors a wide range of choice. In it you'll find equipment that fits the need. Write **today** for Jobbers Catalog, Prices and Discounts.

CHICAGO EYE SHIELD CO.
2329 Warren Blvd. Chicago, Ill.

SELL THE



"HOLDERS THAT HOLD"

● Williams' "Agrippa" Tool Holders provide for all regular operations on lathe, planer and shaper:—turning, boring, planing, threading, knurling, cutting-off and side work. Exclusive design and construction features make them preferred by industrial buyers.

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"The Wrench People"
75 Spring St. NEW YORK, N. Y.

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SUPERIOR DROP-FORGED TOOLS
"AGRIPPA"
TOOL HOLDERS

Hoods, Forge

Burt Manufacturing Co., The, Akron, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Littleford Bros., Cincinnati, Ohio.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Hoods, Smoke

Burt Manufacturing Co., The, Akron, Ohio.
Chicago Eye Shield Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Hoods and Respirators Combined

American-LaFrance and Foamite Corp., Elmira, N. Y.
Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, Ohio.
Willson Products, Inc., Reading, Pa.

Hooks, Belt

(See "Fasteners and Hooks, Belt")

Hooks, Bench

(See "Dogs and Hooks, Bench")

Hooks, Box and Bale Handling

American Swiss File & Tool Co., Elizabeth, N. J.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Leach Co., Oshkosh, Wis.
Palmer-Bee Co., Detroit, Mich.

Hooks, Cant

(See "Cant Hooks")

Hooks, Chain

American Chain Co., Bridgeport, Conn.
American Logging Tool Co., Evart, Mich.
Buckeye Forging Co., The, Cleveland, Ohio.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., Cleveland, O.
Dixie Logging Tool Co., Chattanooga, Tenn.
Newhall Chain Forge & Iron Co., New York, N. Y.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Taylor, S. G., Chain Co., Hammond, Ind.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hooks, Cornice, Painters'

Bauer Mfg. Co., The, Wooster, Ohio.
McMillan's W. H., Sons, New York, N. Y.
Patent Scaffolding Co., The, Chicago, Ill.
Sargent & Co., New Haven, Conn.

Hooks, Cotton and Cargo

Boston & Lockport Block Co., East Boston, Mass.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Sargent & Co., New Haven, Conn.

Hooks, "8" or "S"

American Chain Co., Bridgeport, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Boston & Lockport Block Co., East Boston, Mass.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Cleveland Chain & Mfg. Co., Cleveland, O.
Hodell Chain Co., The, Cleveland, Ohio.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Hooks, Fire Pail

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Jiffy Fire Hose Rack Co., New York, N. Y.
Safety Fire Extinguisher Co., New York.
Sargent & Co., New Haven, Conn.
Swett, A. L., Iron Works, Medina, N. Y.
Washburn Co., The, Worcester, Mass.

Hooks, Grab and Slip

American Chain Co., Bridgeport, Conn.
Buckeye Forging Co., The, Cleveland, Ohio.
Carroll Chain Co., The, Columbus, Ohio.
Jiffy Fire Hose Rack Co., New York, N. Y
Leach Co., Oshkosh, Wis.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Hooks, Hoist, Drop Forged

American Chain Co., Bridgeport, Conn.
American MonoRail Co., Cleveland, Ohio.
Carroll Chain Co., The, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Billings & Spencer Co., Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Boston & Lockport Block Co., East Boston, Mass.
Cleveland Chain & Mfg. Co., Cleveland, O.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Western Block Co., Lockport, N. Y.
Williams, J. H., & Co., Buffalo, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hooks, Packing Extracting

Greene, Tweed & Co., New York, N. Y.

Hooks, Pipe, Drive

Brooks, M. S., & Sons, Inc., Chester, Conn.
Chicago Expansion Bolt Co., Chicago, Ill.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Sargent & Co., New Haven, Conn.
Western Wire Products Co., St. Louis, Mo.

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SUPERIOR DROP-FORGED TOOLS

Hooks, Screw

Brooks, M. S., & Sons, Inc., Chester, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Hodell Chain Co., The, Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Republic Steel Corp., Cleveland, Ohio.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Hooks, Truck Lantern

Toledo Pressed Steel Co., Toledo, Ohio.

Hoppers, Concrete

Chain Belt Co., Milwaukee, Wis.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Horns, Motor Driven and Vibratory Types

Federal Electric Co., Chicago, Ill.

Horses, Steel

Angle Steel Stool Co., Plainwell, Mich.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Patent Scaffolding Co., The, Chicago, Ill.
Pollard Bros. Mfg. Co., Chicago, Ill.
Royal Metal Mfg. Co., Chicago, Ill.
Toledo Pressed Steel Co., The, Toledo, O.

Hose, Acid

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.

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Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Titeflex Metal Hose Corp., Newark, N. J.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Air Brake

(See "Hose, Rubber, Air" and "Hose or Tubing, Metallic, Flexible")

Hose, Chemical Engine

(See "Hose, Rubber")

Hose, Coke

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Whitehead Bros., Rubber Co., Trenton, N.J.

Hose, Cotton, and Cotton, Rubber Lined

American Fire Hose Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Jiffy Fire Hose Rack Co., New York, N. Y.
Kidde, Walter, & Co., Inc., Bloomfield, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Niedner's, Chas., Sons Co., Malden, Mass.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Safety Fire Extinguisher Co., The, New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose Couplings

(See "Couplings, Hose," and "Couplings for Flexible Metal Hose")

Hose, Divers'

(See "Hose, Rubber")

Hose Ends

(See "Ends, Hose")

Hose, Engine and Tender

(See "Hose, Rubber")

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Recommended for use with all types of air tools and compressors.

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Thermoid covers the hose field completely. For half a century, our engineers have worked hand in hand with various industries to develop types of hose construction ideally fitted to their individual task. Today, our line includes seventy-five distinct types—each designed to fill the exacting requirements of specific jobs. Write for descriptive catalog.

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Thermoid
BELTING · PACKING · HOSE · BRAKE LININGS

Hose, Fire Engine

(See "Hose, Cotton," "Hose, Rubber," and "Hose, Linen")

Hose, Gas

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Bastian-Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.

Hose, Gasoline

Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Bowser, S. F., and Co., Fort Wayne, Ind.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., The, Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Hydraulic

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Asch & Co., Inc., New York, N. Y.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
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New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Linen

American Fire Hose Co., Philadelphia, Pa.
Beck, Wm. and Chas., and Sons, Lawrence, Mass.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Kidde, Walter, & Co., Inc., Bloomfield, N.J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhanttan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Neidner's, Chas., Sons Co., Malden, Mass.
New York Belting & Packing Co., Passaic, N. J.

Hose or Tubing, Metallic, Flexible

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cory, Chas., Corp., Brooklyn, N. Y.
DeVilbiss Co., The, Toledo, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Imperial Brass Mfg. Co., Chicago, Ill.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.

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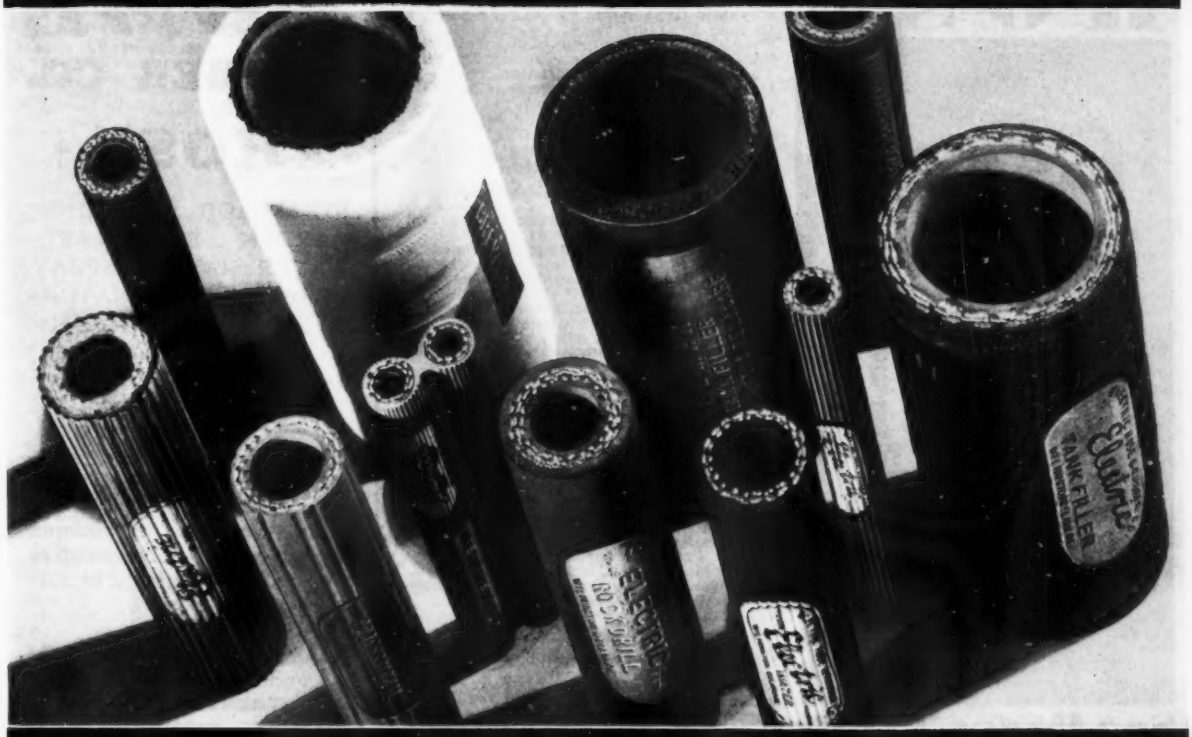

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Rhopac Products Corp., Chicago, Ill.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Mill

(See "Hose, Cotton, and Cotton, Rubber Lined")

Hose, Oil

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Co., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Oxy-Acetylene

Air Reduction Sales Co., New York, N. Y.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bastian-Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dockson, C. H., Co., Detroit, Mich.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.

IMPERIAL Flexible Tubing and Couplings

For oil, grease, gasoline and vacuum lines . . .

This tubing fills the widespread need of industrial plants and others for a flexible tubing for oil, grease, gasoline and vacuum lines, that can be made up right from the coil in any length desired—thus eliminating the expense and delay of obtaining special lines for individual jobs. Assembly is made by special couplings which are available to fit all standard connections.

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HOSE

See Pages 33-36

Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Pittsburgh Thermoline Co., Pittsburgh.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Thermoid Rubber Co., Trenton, N. J.
Torchweld Equipment Co., Chicago, Ill.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Weldit Acetylene Co., Detroit, Mich.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Paint Spray

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., The, Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Paasche Airbrush Co., Chicago, Ill.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Simplex Spray Equipment Co., Chicago.
Spray Engineering Co., Somerville, Mass.
Thermoid Rubber Co., Trenton, N. J.
United States Air Compressor Co., Cleveland, Ohio.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Radiator

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Rotary Driller

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Mfg. Co., Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Rubber

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross, Wm. M., Co., Sharon, Pa.
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Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
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Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
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Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland, Ohio.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross, Wm. M., Co., Sharon, Pa.
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Home Rubber Co., Trenton, N. J.
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Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
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Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Schramm, Inc., West Chester, Pa.
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Spray Engineering Co., Somerville, Mass.
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United States Air Compressor Co., Cleveland, Ohio.
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Goodyear Tire & Rubber Co., The, Akron, O.
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Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.

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Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
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New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Sand Blast

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American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
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Mechanical Rubber Co., The, Passaic, N. J.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Ruemelin Mfg. Co., Milwaukee, Wis.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Steam

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Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
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Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Keating, E. F., Co., New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., Passaic, N. J.
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New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Suction

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American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
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Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
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Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
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Goodyear Tire & Rubber Co., Inc., Akron.
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Hewitt Rubber Corp., Buffalo, N. Y.
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Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Welding

(See "Hose, Oxy-Acetylene")

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Merco Nordstrom Valve Co., San Francisco.

Hubs, Saddle

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Crane Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.

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American Radiator Co., New York, N. Y.
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Bishop & Babcock Sales Co., Cleveland, O.
Bristol Co., The, Waterbury, Conn.
Buffalo Forge Co., Buffalo, N. Y.
Carbondale Machine Corp., Harrison, N. J.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Emerson Electric Mfg. Co., The, St. Louis.
Grinnell Co., Inc., Providence, R. I.
Klipfel Mfg. Co., Chicago, Ill.
Modine Mfg. Co., Racine, Wis.
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Powers Regulator Co., The, Chicago, Ill.
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Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
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(See "Sets, Hydrant, Leather")

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Goulds Pumps, Inc., Seneca Falls, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Railroad

American Foundry & Mfg. Co., St. Louis.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Self-Closing

American Foundry & Mfg. Co., St. Louis.
Kupferle, John C., Foundry Co., St. Louis.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Sprinkling

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Columbian Iron Works, Chattanooga, Tenn.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
M & H Valve & Fittings Co., Anniston, Ala.
Marion Malleable Iron Works, Marion, Ind.
Mueller Co., Decatur, Ill.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Wall

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.

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Grinnell Co., Inc., Providence, R. I.
H-B Instrument Co., Inc., Philadelphia, Pa.
Moeller Instrument Co., Inc., Brooklyn.
Philadelphia Thermometer Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.

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American Air Compressor Corp., Brooklyn.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Boice-Crane Co., Toledo, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chicago Belting Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
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Downs, I. G., Denver, Colo.
Fairfield Engineering Co., Marion, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
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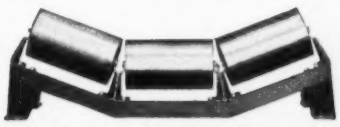

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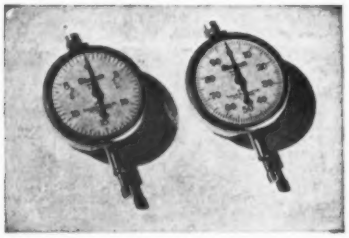

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(See "Cases, Drill and Reamer")

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(See "Fixtures, Indexing")

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(See "Recorders and Indicators, Combustion and Flue Gas, or Carbon Dioxide")

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Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.

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Cutler-Hammer, Inc., Milwaukee, Wis.
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Lunkenheimer Co., The, Cincinnati, Ohio.
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(See "Recorders and Indicators, Specific Gravity")

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Murray, William H., Brooklyn, N. Y.
Trill Indicator Co., Corry, Pa.

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Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
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Federal Products Corp, Providence, R. I.
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Zina Goodell Corp., Salem, Mass.

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Clow, James B., & Sons, Chicago, Ill.
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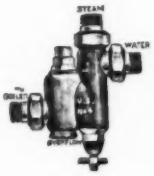

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Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Ohio Injector Co., The, Wadsworth, Ohio.
Penberthy Injector Co., Detroit, Mich.
Randle Machinery Co., The, Cincinnati, O.
Schutte & Koerting Co., Philadelphia, Pa.

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Edna Brass Mfg. Co., The, Cincinnati, O.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Ohio Injector Co., The, Wadsworth, Ohio.
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Modern Mfg. Co., The, Cleveland, Ohio.
Multi-Seal Manufacturing Co., Chicago, Ill.
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Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Dietzgen, Eugene, Co., Chicago, Ill.
Federal Products Corp., Providence, R. I.
General Electric Co., Schenectady, N. Y.
H-B Instrument Co., Inc., Philadelphia, Pa.
Illinois Testing Laboratories, Inc., Chicago.
Leeds & Northrup Co., Philadelphia, Pa.
Lufkin Rule Co., The, Saginaw, Mich.
Moeller Instrument Co., Inc., Brooklyn.
Pratt & Whitney Co., Hartford, Conn.
Pyrometer Instrument Co., The, New York.
Sampson Tool Co., Inc., New York, N. Y.
Taylor Instrument Companies, Rochester, N .Y.
Veeder-Root, Inc., Hartford, Conn.

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H-B Instrument Co., Inc., Philadelphia, Pa.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.

Insulating Material, Electric

Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Columbian Rope Co., Auburn, N. Y.
Continental-Diamond Fibre Co., Newark, Del.
Cook's, Adam, Sons, Inc., Linden, N. J.
Cutler-Hammer, Inc., Milwaukee, Wis.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hubbard & Co., Pittsburgh, Pa.
Keasbey & Mattison Co., Ambler, Pa.
Owens-Illinois Glass Co., Toledo, Ohio.
Ralco Manufacturing Co., Chicago, Ill.
Ruberoid Co., The, New York, N. Y.
Sauereisen Cements Co., Pittsburgh, Pa.

Insulation, Conduit

(See "Filler or Insulation, Conduit")

Insulation, High Temperature Block

Armstrong Cork Products Co., Lancaster, Pa.
Carey, Philip, Co., The, Lockland, Ohio.
Eagle-Picher Lead Co., Chicago, Ill.
Johns-Manville, New York, N. Y.
Quigley Company, Inc., New York, N. Y.

RAWL-ANCHORS

One Piece Double End
Can't be Used Wrongly

A one-piece, heavy-duty, double-expanding, double-ended masonry anchor for bolts. Foolproof—can't be installed improperly. It has tremendous holding power. A real demand, real profits, and a real Jobbers' Merchandising Plan to keep things humming. Write for details.

THE RAWLPLUG COMPANY, Inc.
96-97 Lafayette St., New York, N. Y.—and everywhere

Insulation, Plastic Furnace

Botfield Refractories Co., Philadelphia, Pa.
Carey, Philip, Co., The, Lockland, Ohio.
Eagle-Picher Lead Co., Chicago, Ill.
Ehret Magnesia Mfg. Company, Valley Forge, Pa.
Johns-Manville, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Quigley Company, Inc., New York, N. Y.
Refractory & Engineering Corp., New York, N. Y.

Insulation, Waterproof, Underground Steam Line

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Alfol Insulation Co., Inc., New York, N. Y.
Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York, N. Y.
Ruberoid Co., The, New York, N. Y.
Rust-Pruf Co., The, Chicago, Ill.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.

Irons, Branding

General Electric Co., Schenectady, N. Y.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Vulcan Electric Co., Lynn, Mass.

Irons, Gasket

Bernz, Otto, Co., Inc., Rochester, N. Y.

Irons, Plane

Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Electric Co., Lynn, Mass.

Irons, Soldering

(See "Coppers and Irons, Soldering")

Irons, Tuyere

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Frederick Iron & Steel Co., The, Frederick, Md.

Jacks, Automatic Lowering

Blackhawk Mfg. Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Automobile and Motor Truck

Blackhawk Mfg. Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Manley Manufacturing Div. of American Chain Co., Inc., York, Pa.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Cable Reel

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Lewis-Shepard Co., Boston, Mass.
Stimmel Winch Co., Long Island City, N. Y.
Swett, A. L., Iron Works, Medina, N. Y.
Templeton, Kenly & Co., Chicago, Ill.

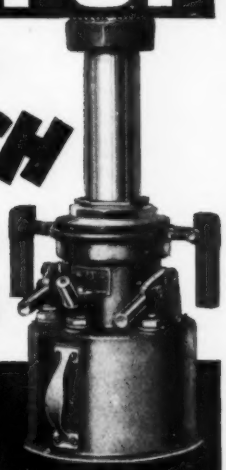
Jacks, Car

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Swett, A. L., Iron Works, Medina, N. Y.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Horizontal

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.

LIFT UP OR PUSH 1 to 75 TONS



Blackhawk Hydraulics — speedy, smooth, powerful. Micro-precision raising and lowering. Some also have advantages of remote control. Blackhawk Engineers offer counsel on your industrial applications — without obligation.

BLACKHAWK MFG. COMPANY
Dept. MSD MILWAUKEE, WIS.

BLACKHAWK HYDRAULIC JACKS

Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, House Raising

Blackhawk Mfg. Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Templeton, Kenly & Co., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.

Jacks, Hydraulic

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.

(Continued on page 204)

One Address

is given editorially for Each Manufacturer Listed in the Directory Edition

This is the main or general sales office, or the one otherwise specified by the company

HYDRAULIC JACKS

Jacks for every lifting purpose, inside and outside pump types; high and low lift.

Jacks for use by Contractors, Builders, Dry Dock and Wrecking Companies, Machine Shops and in the Oil Fields—

The Watson-Stillman Company

100 Aldene Rd. Roselle, N. J.

Jacks, Hydraulic

(Continued from page 203)

General Electric Co., Schenectady, N. Y.
Henderer's, A. L., Sons, Wilmington, Del.
Joyce-Cridland Co., The, Dayton, Ohio.
Lourie Manufacturing Co., Chicago, Ill.
Messinger Bearings, Inc., Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Journal, or Low Height

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Ladder

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Mfg. Co., The, Wooster, Ohio.
Boston & Lockport Block Co., East Boston, Mass.
Cleveland Wrought Products Co., Cleveland, Ohio.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
United Screw & Bolt Corp., Cleveland, Ohio.

Jacks, Lifting

All Steel Welded Truck Corp., Rockford, Ill.
Blackhawk Mfg. Co., Milwaukee, Wis.
Clark Manufacturing Co., Philadelphia.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Oliver-Barth Jack Co., Milwaukee, Wis.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Swett, A. L., Iron Works, Medina, N. Y.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Log

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Joyce-Cridland Co., The, Dayton, Ohio.
Link-Belt Co., Chicago, Ill.

Jacks, Mining

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Oil Well

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Planer

Armstrong Bros. Tool Co., Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Joliet, Ill.
Sheldon Machine Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Pneumatic

Curtis Pneumatic Machinery Co., St. Louis, Mo.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Lourie Manufacturing Co., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.

Jacks, Pole Pulling and Straightening

Blackhawk Mfg. Co., Milwaukee, Wis.
Coffing Hoist Co., Danville, Ill.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Pulling and Pushing

Blackhawk Mfg. Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Clark Manufacturing Co., The, Philadelphia, Pa.
Coffing Hoist Co., Danville, Ill.
Dudgeon, Richard, Inc., New York, N. Y
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Giant Mfg. Co., Council Bluffs, Iowa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Pump

(See "Pump Jacks")

Since 1899
Simplex Jacks
have served every need of every purchaser of
Mill Supplies
Templeton, Kenly & Co.
1020 S. Central Ave., Chicago.

Every Effort Has Been Made

to Make

The Directory Edition

as Complete and Up-to-date

as Possible

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Where You Do Not Find the

Information

You Are Seeking

In Such Cases, Write

MILL SUPPLIES

And We Will Do Everything

We Can to Secure It for You

THE JOYCE-CRIDLAND COMPANY

ESTABLISHED 1873

Manufacturers of Joyce Lifting Jacks and Joyce Super Automobile Lifts
General Offices and Plant—Dayton, Ohio, U.S.A.

DISTRICT REPRESENTATIVES

R. J. Ward, 37-08 Northern Blvd., Long Island City, N. Y.
Harry B. Burlow, 19 So. Wells St., Chicago, Ill.
O. L. Wright, 421 Chestnut St., Philadelphia, Pa.
R. C. Bracken, 213 Boston Bldg., Denver, Colo.
Chas. D. Parr, 625 Third St., San Francisco, Calif.

Joyce Jacks are the product of pioneer builders of precision lifting equipment. For sixty-three (63) years, the name "JOYCE" has been a symbol of jack quality.

Today, Joyce offers to industry the largest and most complete line of quality jacks on the market, ranging from 1 ton to 100 tons capacity, embracing ratchet lever, hydraulic and screw types.

Joyce Jacks are distributed thru industrial supply houses in every trade center. Distributors—send for complete catalog and distributors' prices.

Products

JOYCE
Automatic Lowering Jacks
Track Jacks
Journal Jacks
Standard Speed Screw Jacks
Self Lowering Jacks

JOYCE
Hydraulic Jacks
Curb and Garage Jacks
Locomotive Screw Jacks
Trench Braces
Motorized Jacks

and

Joyce Super Hydraulic Automobile Lifts for Electric and Compressed Air Operation.

Joyce Automatic Lowering Jacks

5, 10, 15, 20, 25, 35 and 50 Ton Capacities

No. 76-A

Capable of withstanding rough, knockabout usage, these Jacks are extensively used in almost every branch of industry. Especially recommended for use in mine, locomotive, agricultural, construction and industrial work. The base is extra strong and the foot is forged to rack bar assuring maximum strength. Mechanism enclosed and protected from dirt. For the corresponding overall height these jacks have a one-inch greater lift than any other lever jack. Steel operating lever furnished with each jack.

Jack No.	Capacity Tons	Height Inches	Rise Inches	Weight Pounds	List Price
66-A Trip	5	14	7½	20	$ 15.00
67-A	5	16	9	22	16.00
67-A Trip	5	16	9	22	16.00
76-A	10	22	13	57	25.00
1922-A	15	22	13	86	38.00
1928-A	15	28	19	93	40.00
2028	20	28	19	100	45.00
200-A	25	27	14	165	100.00
290-AF	25	27	14	160	110.00
295-AA	35	28	17	190	135.00
297	35	36	25	250	175.00
400-A	50	28	15	245	190.00
401-A	50	36	23	285	210.00

Joyce "Jackmaster" Locomotive Screw Jacks

With the Positive Safety Stop

Of sturdy construction and distinctive design. Recommended for industrial plants, contractors, machine shops and house movers. You can't run it out too far—it has a positive safety stop. The Diamond Tread cap provides a firm, safe, non-slipping seat for the load and reduces friction to a minimum. The housing is solid (dirt proof) and screw is made of special steel, correctly and scientifically threaded for smooth operation. Built in 38 sizes, from 6 to 45 tons capacity, with screw diameters from 1" to 3". Steel levers furnished only when ordered and at extra cost.

The Joyce Jackmaster line also includes Bell Base Ratchet Screw Jacks, Shoring Jacks, House Raising Jacks, Cable Reel Screw Jacks, and Trench Braces. Send for descriptive bulletin, No. 126.

Joyce Journal Jacks

No. 1025

Jacks Nos. 1025, 1035, 151-B and 153-J are used for brassing car journals, bridge work, handling industrial electric locomotives and other services where a short powerful lift is required. Jacks Nos. 1015-A, 1025-A and 1035-A are constructed with special heat treated Aluminum alloy frame and base plate. Extremely light and very durable.

All JOYCE Journal Jacks have a positive stop feature which prevents the operator from driving the ram out beyond the safety limit of the screw.

Jack No.	Capacity Tons	Height Inches	Rise Inches	Weight Pounds	List Price
1015	15	10	5	36	$25.00
1025	25	10	5	36	36.00
151-B	25	14	8	25	45.00
1035	35	10	5	42	55.00
153-J	50	10	4¼	69	95.00
1015-A	15	10	5	25	32.00
1025-A	25	10	5	25	45.00
1035-A	35	10	5	35	65.00

Joyce "Liftmaster" Hydraulic Jacks

No. T-12

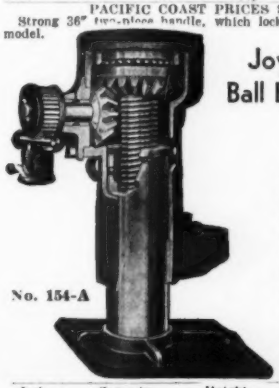
Joyce Liftmaster Hydraulic Jacks are the most efficient of all hand operated jacks. Especially effective in close quarters. Designed for truck and bus as well as passenger car and industrial lifting. Manufactured in telescoping ram (B Series), standard ram (JM and T Series) and screw extension head cap styles. Attractively finished in pleasing color combinations and fully guaranteed.

Model	Tons Cap.	Weight With Handle Pounds	Low Hgt. Ins.	Lift Ins.	Extension Ins.	Total Hgt. Ins.	List Price
JM-1.5-S	1½	9¾	6¾	5	3	14¾	$ 3.95
JM-2-ST	2	12	7¾	5¼	2	15	7.50
T-2.5-S	2½	16¼	8	6	3	17	11.50
T-4.5-S	4½	20	9	5¾	2½	17¼	14.00
B-4.5	4½	33	7⅛	8	...	15⅛	35.00
B-7-S	7	33	7⅝	8	2¼	17⅞	40.00
HB-7-S	7	30	8½	10½	2¼	21¼	42.00
T-7	7	25	8⅝	5½	...	14⅛	18.50
T-7-S	7	24	9	5½	2½	17	18.50
T-12	12	38	10⅛	6¾	...	16⅞	26.50
T-12-S	12	38½	10½	6¾	3½	20¾	26.50
LT-12-S	12	34½	8	5	2½	15½	26.50
MT-12-S	12	37¼	9	6	3½	18½	26.50
T-20	20	55	10¾	6¾	...	17½	45.00
T-30	30	65	10¾	6¾	...	17½	66.00

PACIFIC COAST PRICES SLIGHTLY HIGHER

Strong 36" two-piece handle, which locks onto pump lever, supplied with each model.

Joyce Standard Speed Ball Bearing Geared Screw Jacks



No. 154-A

Plain Ball Bearing Jacks are used principally for heavy contracting work, bridge building, ship building, etc. They are recommended for outside work as they are not affected by weather conditions or rough handling. The jacks are all of the bridge or foot lift type and are furnished standard with a large area rectangular base.

Jack No.	Capacity Tons	Height Inches	Rise Inches	Weight Pounds	List Price
154-A	25	22	12	119	$ 90.00
155-A	25	26	16	133	96.00
158-A	35	22	12	180	130.00
160-A	35	27	17	208	138.00
165-A	50	26	16	230	150.00
170-A	75	27	16	380	200.00

Jacks, Pushing, Pipe

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Railroad Track

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Screw

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Swett, A. L., Iron Works, Medina, N. Y.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Screw, Electric, for Locomotive and Car Lifting

Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.

Jacks, Screw, Machinists'

Hobbs, Clinton E., Co., Boston, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Starrett, L. S., Co., The, Athol, Mass.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Self-Lowering, Governor Controlled

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.

Jacks, Shoring

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Red Star Products Corp., Cleveland, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Stone

Blackhawk Mfg. Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.

Jacks, Telescopic

Blackhawk Manufacturing Co., Milwaukee.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Traversing

Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Tumbling Barrel

Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Jackscrews

California Screw Co., San Francisco, Cal.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Templeton, Kenly & Co., Chicago, Ill.

Jaws, Face Plate, for Chucks

Skinner Chuck Co., The, New Britain, Conn.
Union Mfg. Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

Jaws, Pipe, for Vises

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Erie Tool Works, The, Erie, Pa.
Hollands Mfg. Co., Erie, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Jaws, Vise

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Hollands Mfg. Co., Erie, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Ridge Tool Co., The, Elyria, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Joint Runners

(See "Runners, Joint")

Jointers

American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Boice-Crane Co., Toledo, Ohio.
Champion Blower & Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Oliver Machinery Co., Grand Rapids, Mich.
Perkins & Co., Grand Rapids, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Jointers, Saw Guide

(See "Rounders or Jointers, Saw Guide")

Jointing Machines, Saw

(See "Machines—Saw Filing, Setting and Jointing")

Joints, Ball and Socket

Chicago Screw Co., The, Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Conner, Miles A., Lockport, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Moran Flexible Steam Joint Co., Louisville, Ky.
Morrison Bros., Dubuque, Iowa.
Taylor Forge & Pipe Works, Chicago, Ill.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Joints, Pipe, Angle

American Rolling Mill Co., The, Middletown, Ohio.
Barco Manufacturing Co., Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.

Joints, Pipe, Expansion

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris, Arthur, & Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
New York Brass Foundry Co., New York.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Yarnall-Waring Co., Philadelphia, Pa.

Joints, Pipe, Flexible

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Moran Flexible Steam Joint Co., Louisville, Ky.
Taylor Forge & Pipe Works, Chicago, Ill.

Joints, Pipe and Tubing, Slip

Belfield, H., Co., Philadelphia, Pa.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hays Manufacturing Co., Erie, Pa.
Nugent, Wm. W., & Co., Chicago, Ill.
Oster Manufacturing Co., The, Cleveland.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.

Joints, Pipe, Swing

Acheson Manufacturing Co., Rankin, Pa.
Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Crane Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Grinnell Co., Inc., Providence, R. I.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Valve Co., Milwaukee, Wis.
Moran Flexible Steam Joint Co., Louisville, Ky.
Morrison Bros., Dubuque, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
New York Brass Foundry Co., New York.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Walworth Co., New York, N. Y.
Williams, Franklin, Inc., Orange, N. J.

Joints, Universal, for Machinery

Boston Gear Works, Inc., North Quincy, Mass.
Chicago Die Casting Mfg. Co., Chicago.
Connor, Miles A., Lockport, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Gray & Prior Machine Co., The, Hartford, Conn.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Kegs, Shop, Steel

Chapin, R. E., Mfg. Works, Batavia, N. Y.

Kettles, Acid and Chemical

Ampco Metal, Inc., Milwaukee, Wis.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Littleford Bros., Cincinnati, Ohio.

Kettles, Asphalt

Aeroil Burner Co., Inc., West New York, N. J.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Kettles, Copper

Buffalo Forge Co., Buffalo, N. Y.
Harris, Arthur, & Co., Chicago, Ill.

Kettles and Pots, Galvanizing

Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Farquhar, A. B., Co., Ltd., York, Pa.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa (Electric)

Kettles, Metal Melting

(See "Pots and Kettles, Metal Melting")

Kettles, Steam Jacketed

Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.

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World's Largest Manufacturers of Jacks for Every Purpose

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- Genuine Barrett Oil Well Jacks
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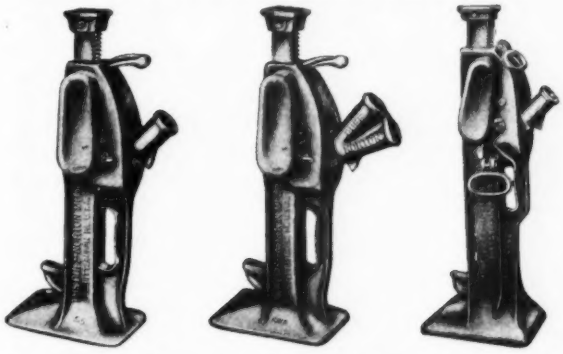
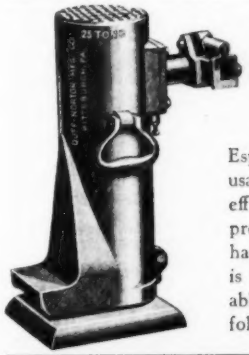
- Norton Self-Lowering Screw Jacks
- Norton Standard Speed Screw Jacks
- Duff Governor Controlled Screw Jacks
- Duff Extensible Trench Braces
- Track Jacks—Push and Pull Jacks
- Automobile and Truck Jacks
- Jacks for every lifting purpose

THE NEW DUFF-NORTON AUTOMATIC LOWERING JACKS in 5, 10, 15 and 20 Ton Capacities



Equipped with the new and improved single unit Automatic Lowering device—a spring actuated mechanism that is self contained in a housing and can be easily removed from the jack for occasional adjustment or renewal after long service . . . incorporates the world famous genuine Barrett Mechanism . . . no loose pieces, bolts or nuts to adjust within the jack.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
516	5	16	9½	32	Greas	$16.00
1022	10	22	12½	60	Grope	25.00
1522	15	22	12¼	78	Grape	38.00
2028	20	28	18	94	Giant	45.00



THE 25 TON NORTON BALL BEARING BRIDGE AND WRECKING JACK — FOOT LIFT TYPE—No. B-2522

Especially suitable for rough outdoor usage . . . requires a minimum of effort to handle the heaviest loads . . . provided with convenient carrying handles on each side . . . foot lift is ideal for handling low loads. Available in two heights and two lifts as follows:—

Jack No.	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
B-2522	22	10¼	140	Adjust	$90.00
B-2526	26	14⅜	157	Atlas	96.00

THE DUFF-NORTON Genuine Barrett 4-Way General Purpose Jack No. 1523

The ideal all purpose jack of all trades . . . sturdily built yet extremely light in weight for capacity . . . conveniently handled and spotted.

Combines a number of lifting applications including (1) Straight Lifting with load applied on head, (2) Chain Lifting, (3) Hook Lifting and (4) Foot Lifting. Swivel base permits useful lifting at various angles and is equipped with positive locking latch for upright lifting. . . . Double Socket lever for effective operation in close and cramped quarters . . . an ideal one man jack with a multitude of uses. Capacity 15 tons. . . . Height 22½". . . Raise 12½". . . . Weight 67 lbs. . . . Code Word GENPU. . . . List Price complete with solid steel lever bar $48.00 . . . without chain or hooks $38.00.

DUFF-NORTON BALL BEARING JOURNAL JACK No. 2510-C

Small and light in weight . . . easy to carry as a lantern . . . easy to operate . . . rapid raising and lowering, powerful in lifting ability, absolutely safe up to rated capacity. Equipped with special Positive Stop Safety Feature which prevents standard from being run out of base. Furnished with 3 foot solid steel operating lever with pinch bar end.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
111-C	15	10	5	29	Cake	$25.00
2510-C	25	10	5	36	Claro	36.00
3510-C	35	10	5	50	Cisco	55.00
5010-C	50	10	4½	61	Cabel	95.00

NORTON SELF LOWERING SPEED CONTROLLED JACK

A masterpiece in high speed, heavy duty jack design—will lift 25 to 100 tons with the utmost ease and safety—has semi-keyed standard permitting it to be quickly turned up or down by hand but rigidly held during operating. Lubrication of all parts is automatic, insuring long life and ease of operation. Possesses extra high lift—a distinct advantage.

No. 7263C

Jack No.	Capacity Tons	Height Ins.	Raise Ins.	Weight Lbs.	Diam. in Base Ins.	Code Word	List Price
2261-BB	25	26	14	155	12	Ink	$125.00
3261-BB	35	26	14	190	12	Income	150.00
5261-BB	50	26	14	266	14	Ivy	210.00
7263-C	75	26	14	347	14	Cater	285.00
1263-C	100	26	14	358	14	Concur	305.00

Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris, Arthur, & Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Murray Iron Works Co., Burlington, Iowa.
Orr & Sembower, Inc., Reading, Pa.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Kettles, Tar and Pitch

Aeroil Burner Co., Inc., West New York, N. J.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.

Keys, Center or Drift

Cleveland Twist Drill Co., The, Cleveland.
Filer & Stowell Co., The, Milwaukee, Wis.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Steel Specialty Co., Beaver Falls, Pa.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Keys, Gib

Chain Belt Co., Milwaukee, Wis.
Eaton Manufacturing Co., Massillon, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Leard, William, Co., Inc., The, New Brighton, Pa.
Medart Co., The, St. Louis, Mo.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morton Manufacturing Co., Muskegon Heights, Mich.
Standard Steel Specialty Co., Beaver Falls, Pa.

Keys, Hydrant and Street Washer

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Economy Manufacturing Co., Philadelphia.
Hays Manufacturing Co., Erie, Pa.

Keys, Machine

Chain Belt Co., Milwaukee, Wis.
Eaton Manufacturing Co., Massillon, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Leard, William, Co., Inc., The, New Brighton, Pa.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morton Manufacturing Co., Muskegon Heights, Mich.
Standard Steel Specialty Co., Beaver Falls, Pa.
Whitney Chain & Mfg. Co., The, Hartford, Conn.
Williams, J. H., & Co., New York, N. Y.

Keys, Offset

Chicago Belting Co., Chicago, Ill.
Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
Rockwood Mfg. Co., Indianapolis, Ind.

Keys, Spring

(See "Cotter Pins and Spring Keys")

Keys, Valve and Stop Cock

American Foundry & Mfg. Co., St. Louis.
American Radiator Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Jenkins Bros., New York, N. Y. (Valve only)
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.

Keys, Woodruff

Eaton Manufacturing Co., Massillon, Ohio.
Morton Manufacturing Co., Muskegon Heights, Mich.
Standard Steel Specialty Co., Beaver Falls, Pa.
Whitney Chain & Mfg. Co., The, Hartford, Conn.

Keyseaters, Portable

Burr, John T., & Son, Brooklyn, N. Y.
Ryerson, Joseph T., & Son, Inc, Chicago.
Scully-Jones & Co., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Keyseating Machines

(See "Machines, Keyseating and Grooving")

Kits, Tool, Steel

Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Kennedy Manufacturing Co., Van Wert, O.
Vlchek Tool Co., The, Cleveland, Ohio.

Knives, Belt

Gustafson & Scott Mfg. Co., Chicago, Ill.
Manufacturers' Belt Hook Co., Chicago.
Schieren, Chas. A., Co., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.
Tuck Mfg. Co., Brockton, Mass.

Knives, Chipping

Atkins, E. C., and Co., Indianapolis, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Fletcher-Terry Co., The, Forestville, Conn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Johnson, William, Inc., Newark, N. J.
Klein, M., & Son, Chicago, Ill.
Ohio Knife Co., The, Cincinnati, Ohio.
Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.

Knives, Circular

Atkins, E. C., and Co., Indianapolis, Ind.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Knives—Cooperage, Leather, Paper and Veneer

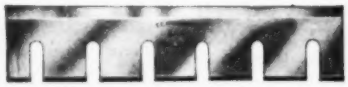
Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Detroit Edge Tool Works, Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Ohio Knife Co., The, Cincinnati, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Taylor, Stiles & Co., Riegelsville, N. J.

Knives, Draw

Greenlee Bros. & Co., Rockford, Ill.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Swett, Frank W., & Son, Chicago, Ill.

Knives, Machine

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.



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We carry a complete line of both hand and machine knurls. Special knurls made to order promptly.

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Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Latrobe Tool Co., Latrobe, Pa.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohio Knife Co., The, Cincinnati, Ohio.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Taylor, Stiles & Co., Riegelsville, N. J.

Knives, Putty

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Fletcher-Terry Co., The, Forestville, Conn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Standard Belt Fastener Co., The, Unionville, Conn.

Knives, Rotary

Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Illinois Tool Works, Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohio Knife Co., The, Cincinnati, Ohio.

Knurls

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Williams, J. H., & Co., New York, N. Y.

Labels, Bin

Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Haddon Bin Label Co., Haddon Heights, N. J.

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Detroit Belt Lacer Co., Detroit, Mich.
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Talcott, W. O. & M. W., Inc., Providence, R. I.
Washburn Co., The, Worcester, Mass.

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Baltimore Belting Co., Baltimore, Md.
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Chicago Rawhide Mfg. Co., The, Chicago.
Clipper Belt Lacer Co., Grand Rapids, Mich.
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—one lace that answers every need

You can recommend it to your trade regardless of the conditions under which the belt is working. That eliminates the necessity for stocking three or four different tannages.

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When subjected to 240 degrees Fahrenheit for 60 consecutive hours, NEVERBREAK retained a tensile strength of 325 pounds. That shows heat resistance! And when NEVERBREAK Chrome Lace becomes wet, it will dry back to its original soft and pliable state.

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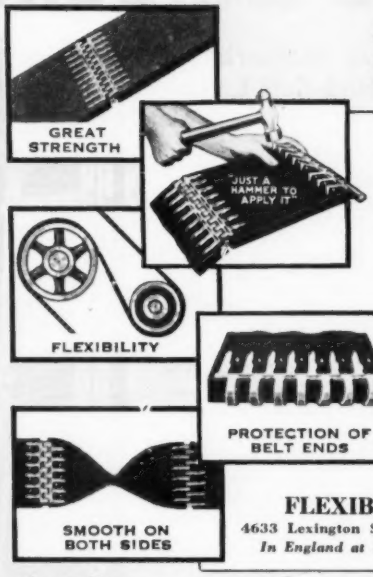
STEEL BELT LACING



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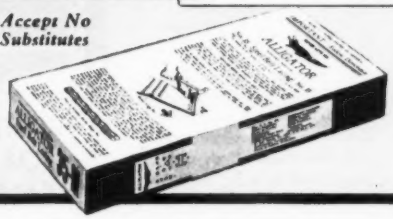

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California Tanning Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
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Eagle Belting Co., Chicago, Ill.
Frey Tanning Co., Lancaster, Pa.
Graton & Knight Co., Worcester, Mass.
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Rawhide Pins
Cut Lacing
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Safety Lacing
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Chicago Rawhide Lacing. Hand cut, selected, stretched, tested and guaranteed, non-deteriorating. Mechanical tannage. Also Indian Tan, chrome tanned.
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Safety Lacing — round, twisted, tough, flexible gut rawhide. The safest of all belt lacing.

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Armstrong-Bray & Co., Chicago, Ill.
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Clipper Belt Lacer Co., Grand Rapids, Mich.
Crescent Belt Fastener Co., New York.
Detroit Belt Lacer Co., Detroit, Mich.
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Hubbard & Co., Pittsburgh, Pa. (Manhole)
Littleford Bros., Cincinnati, Ohio.

Ladders, Extension, Safety

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Manufacturing Co., Wooster, Ohio.
Chesebro Whitman Co., Inc., Long Island City, N. Y.
Goshen Manufacturing Co., The, Goshen, Ind.
Keckley, O. C., Co., Chicago, Ill.
Lourie Manufacturing Co., Chicago, Ill.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Michigan Ladder Co., Ypsilanti, Mich.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
Rowe Manufacturing Co., Galesburg, Ill.

Ladders, Fire

American-LaFrance and Foamite Corp., Elmira, N. Y.
Boyer Fire Apparatus Co., Logansport, Ind.
Goshen Manufacturing Co., The, Goshen, Ind.
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The steps of our Heavy Duty ladders are all mortised full rodded and trussed. Heavy side spreaders and malleable top irons are also standard.

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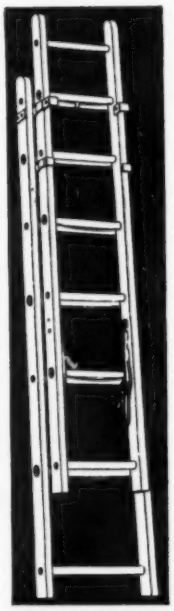
Whether for institutional, industrial or household use, there is a Rich Safe Ladder for every purpose.

Conveniently located warehouses insure prompt shipments.

THE RICH PUMP & LADDER CO.
CINCINNATI, OHIO

The Rich Steel Truss Rung Ladder (at right) is steel trussed in, under and out, through recessed grooves in the rungs. A truss at the top, one at the bottom and one at the center of each section of the ladder firmly tie the two rails together and provide a permanently rigid construction.

The Mill Wright Step Ladder (at left) is made from selected spruce with wide side rails and wide steps. Each step is re-enforced by a ¼" steel rod and truss block with an angle brace under the bottom step.



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Hollands Mfg. Co., Erie, Pa.
Johnson, William, Inc., Newark, N. J.
Marion Malleable Iron Works, Marion, Ind.
Peck, Stow & Wilcox Co., Southington, Conn. (Metal melting only)
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rowell Mfg. Co., Appleton, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Swett, A. L., Iron Works, Medina, N. Y.
Unique Manufacturing Co., Inc., Chicago.

Ladles, Steel

Bethlehem Steel Co., Bethlehem, Pa.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Johnson, William, Inc., Newark, N. J.

Lagging, Pulley

(See "Covering, Pulley")

Lamps, Acetylene

Justrite Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
National Carbide Corp., New York.

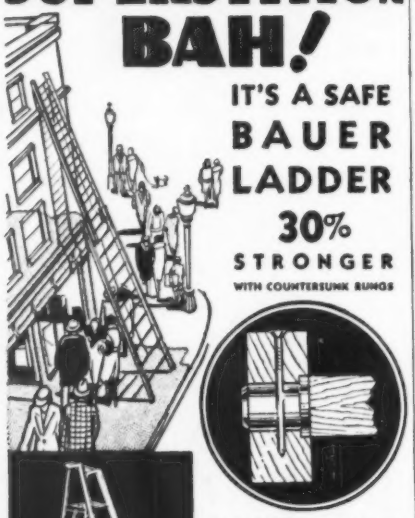
Lamps, Carbide

Justrite Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Milburn, Alexander, Co., The, Baltimore, Md. (Portable carbide lights)
National Carbide Corp., New York.

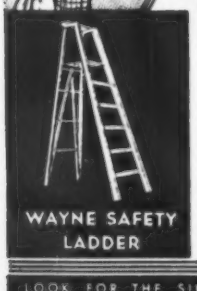
Lamps, Electric, Portable, Adjustable and Extension

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Bussmann Mfg. Co., St. Louis, Mo.

SUPERSTITION BAH!



IT'S A SAFE BAUER LADDER 30% STRONGER WITH COUNTERSUNK RUNGS



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A COMPLETE LINE of LADDERS for EVERY INDUSTRIAL PURPOSE

MEET ALL SAFETY CODE REQUIREMENTS —AND THEY COST NO MORE. SEND FOR A COPY OF OUR NEW CATALOG SHOWING BLUE PRINT SPECIFICATIONS.

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THE BAUER MFG. CO.
WOOSTER, OHIO

Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Ladders, Platform, Safety

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Manufacturing Co., Wooster, Ohio.
Chesebro Whitman Co., Inc., Long Island City, N. Y.
Dayton Safety Ladder Co., Cincinnati, O.
Keckley, O. C., Co., Chicago, Ill.
Lourie Manufacturing Co., Chicago, Ill.
Michigan Ladder Co., Ypsilanti, Mich.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
Safety Equipment Service Co., The, Cleveland, Ohio.

Ladders, Roller and Trolley

Michigan Ladder Co., Ypsilanti, Mich.
Milbradt Mfg. Co., St. Louis, Mo.
Myers, F. E., & Bro. Co., The, Ashland, O.
Patent Scaffolding Co., The, Chicago, Ill.
Richards-Wilcox Mfg. Co., Aurora, Ill.

Ladders, Roofers'

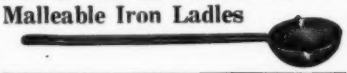
Goshen Manufacturing Co., The, Goshen, Ind.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Michigan Ladder Co., Ypsilanti, Mich.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.

Ladders, Step

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Manufacturing Co., Wooster, Ohio.
Chesebro Whitman Co., Inc., Long Island City, N. Y.
Goshen Manufacturing Co., The, Goshen, Ind.
Lourie Manufacturing Co., Chicago, Ill.
Michigan Ladder Co., Ypsilanti, Mich.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
Rowe Manufacturing Co., Galesburg, Ill.

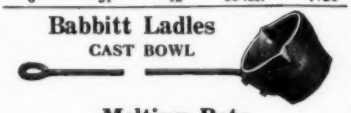
HOLLANDS

Malleable Iron Ladles



Diameter Inches	Length Inches	Capacity Pounds	Weight Per Doz.	List Price Per Doz.
2½	13	1	9 lbs.	$2.40
3	13	1½	10 lbs.	3.00
3½	15½	2½	14 lbs.	4.00
4	16	3½	17 lbs.	4.80
5	19	7	24 lbs.	6.00
6	21	12	30 lbs.	7.20

Babbitt Ladles
CAST BOWL



Melting Pots

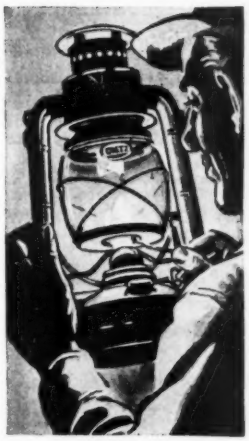
No. 1

Cast bowl and wrought iron handle.

Diameter Inches	Depth Inches	Capacity Pounds	Weight Pounds	List Price Each
4	2¼	8	2	$0.40
5	2¾	10	2½	.50
6 Spl.	3	15	3	.60
6	3½	20	4	.70
7	3¾	25	5	1.00
8	4½	35	6	1.40
9	5¼	60	10	2.00
10	5¾	90	15	2.80
No. 2—With Lip and Tilting Fixture.				
12	7½	175	24	4.20
13½	8	200	28	5.40
15	10	300	60	9.00

HOLLANDS MFG. CO., Erie, Pa.

DIETZ LANTERNS



HIGHEST REPUTATION AND BEST SELLERS

PROFITABLE sales in large volume are assured on Dietz Red Lanterns, because their outstanding reputation for highest quality and reliability give them preference among contractors, utility corporations, municipalities, and large users generally.

When selling lanterns for night warning duty you are selling SAFETY, and assuming a responsibility for quality and performance beyond the requirements of ordinary use.

Therein lies one of the important reasons, not only for customer preference, but why most industrial distributors feature Dietz Lanterns exclusively.

R. E. DIETZ COMPANY
NEW YORK
MAKERS OF LANTERNS FOR THE WORLD . . . FOUNDED 1840

Chicago Die Casting Mfg. Co., Chicago, Ill.
Creamer Glass Works, Millville, N. J.
Eagle Manufacturing Co., Wellsburg, W. Va.
Euclid Rubber Co., Cleveland, Ohio.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hygrade Sylvania Corp., Salem, Mass.
Jewel Incandescent Lamp Co., E. Newark, N. J.
McGill Manufacturing Co., Valparaiso, Ind.
Northern Incandescent Lamp Co., Hoboken, N. J.
Perkins Marine Lamp & Hardware Corp., Brooklyn.

Lamps, Electric, Theft Proof

Kulp Electric Co., Chicago, Ill.

Lamps, Engineers' Hand

Justrite Manufacturing Co., Chicago, Ill.
Perkins Marine Lamp & Hardware Corp., Brooklyn.

Lamps, Incandescent

Champion Lamp Works, Lynn, Mass.
General Electric Co., Incandescent Lamp Dept., Cleveland, Ohio.
Hygrade Sylvania Corp., Salem, Mass.
Jewel Incandescent Lamp Co., East Newark, N. J.
Kulp Electric Co., Chicago, Ill.
Westinghouse Lamp Co., New York, N. Y.

Lamps, Miners' Safety

Handlan-Buck Mfg. Co., St. Louis, Mo.
Justrite Manufacturing Co., Chicago, Ill.
Scovill Mfg. Co., Waterbury, Conn.

Lamps, Railway Signal

General Electric Co., Schenectady, N. Y.
Handlan-Buck Mfg. Co., St. Louis, Mo.

Lanterns—All Kinds

Dietz, R. E., Co., New York, N. Y.
Embury Mfg. Co., Warsaw, N. Y.
Handlan-Buck Mfg. Co., St. Louis, Mo.
National Carbide Corp., New York, N. Y. (Carbide)
Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y. (Marine)
Turner Brass Works, The, Sycamore, Ill.

Lanterns, Electric, Dry Battery

American-LaFrance and Foamite Corp., Elmira, N. Y.
Burgess Battery Co., Freeport, Ill.
Economy Electric Lantern Co., Inc., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Justrite Manufacturing Co., Chicago, Ill.
Safety Equipment Service Co., The, Cleveland, Ohio.

Lapping Machines

(See "Machines, Lapping")

Laterals, Pipe

(See "Fittings, Pipe")

Lath, Metal, Expanded

Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Edwards Manufacturing Co., The, Cincinnati, Ohio.
Truscon Steel Co., Youngstown, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.

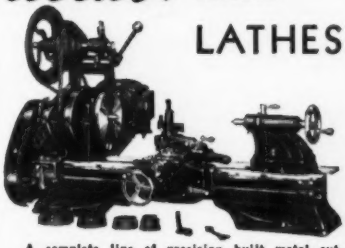
Lathe Attachments

Atlas Press Co., Kalamazoo, Mich.
Boice-Crane Company, Toledo, Ohio.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Craley, C. C., Mfg. Co., Shillington, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Gisholt Machine Co., Madison, Wis.
Layth-Grindar Corp., Orange, N. J.
Monarch Machine Tool Co., The, Sidney, O.
Plomb Tool Co., Los Angeles, Calif.
Pratt & Whitney Co., Hartford, Conn.
Reed Prentice Corp., Worcester, Mass.
Rockford Machine Tool Co., Rockford, Ill.
Sampson Tool Co., Inc., New York, N. Y.
South Bend Lathe Works, South Bend, Ind.
Walker-Turner Co., Inc., Plainfield, N. J.

Lathes, Axle

Sundstrand Machine Tool Co., Rockford, Ill.

Atlas METAL CUTTING LATHES



A complete line of precision built metal cutting lathes priced from $39.75 to $112.50. Back-geared models start at $87.50 less motor, complete with automatic, reversible power feeds, V-belts, built-in counter shaft and motor drive, and many extra features.

GRINDERS

Rugged, powerful, fast and smooth in operation. The Atlas grinders have set a new standard of grinder values. They are built around a completely enclosed cool running motor. Sealed SKF ball bearings with precision balanced rotor. Made in both floor and bench models. Priced from $22.50 up.

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New York
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Chicago
35 E. Wacker Dr.

Lathes, Bench

Ames, B. C., Co., Waltham, Mass.
Atlas Press Co., Kalamazoo, Mich.
Blount, J. G., Co., Everett, Mass.
Boice-Crane Co., Toledo, Ohio.
Champion Blower & Forge Co., Lancaster, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heston & Anderson, Fairfield, Iowa.
Millers Falls Co., Greenfield, Mass.
Moseley Lathe Co., The, Elgin, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.
South Bend Lathe Works, South Bend, Ind.
Sundstrand Machine Tool Co., Rockford, Ill.
Swayne-Robinson & Co., Richmond, Ind.
Van Norman Machine Tool Co., Springfield, Mass.
Walker-Turner Co., Inc., Plainfield, N. J.

Lathes, Buffing and Polishing

(See "Machines, Buffing and Polishing")

Lathes, Chucking

Baird Machine Co., The, Bridgeport, Conn.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Monarch Machine Tool Co., The, Sidney, O.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., Cleveland, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Sundstrand Machine Tool Co., Rockford, Ill.

Lathes, Combination Metal and Woodworking

Boice-Crane Co., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Delta Mfg. Co., Milwaukee, Wis.

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
South Bend Lathe Works, South Bend, Ind.
Swayne-Robinson & Co., Richmond, Ind.

Lathes, Crankshaft

Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
South Bend Lathe Works, South Bend, Ind.
Sundstrand Machine Tool Co., Rockford, Ill.

Lathes, Engine

Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.

Lathes, Foot Power

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.

Lathes, Gap

Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
South Bend Lathe Works, South Bend, Ind.

Lathes, Garage

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Reed-Prentice Corp., Worcester, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.
Swayne-Robinson & Co., Richmond, Ind.

Lathes, Geared Head

Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Rockford Machine Tool Co., Rockford, Ill.
Sundstrand Machine Tool Co., Rockford, Ill.

Lathes, General Purpose

Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.
Sundstrand Machine Tool Co., Rockford, Ill.
Swayne-Robinson & Co., Richmond, Ind.

Lathes, Hand

Boice-Crane Company, Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Delta Mfg. Co., Milwaukee, Wis.
Gisholt Machine Co., Madison, Wis.
Oliver, W. W., Mfg. Co., The, Buffalo.

Lathes, Heavy Duty

Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Oliver Machinery Co., Grand Rapids, Mich.
Reed-Prentice Corp., Worcester, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sundstrand Machine Tool Co., Rockford, Ill.

Lathes, Laboratory

Boice-Crane Company, Toledo, Ohio.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Hammel, Riglander & Co., Inc., New York.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.
Swayne-Robinson & Co., Richmond, Ind.

Lathes, Manual Training

Atlas Press Co., Kalamazoo, Mich.
Blount, J. G., Co., Everett, Mass.
Boice-Crane Co., Toledo, Ohio.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Millers Falls Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Rockford Machine Tool Co., Rockford, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.
Swayne-Robinson & Co., Richmond, Ind.
Walker-Turner Co., Inc., Plainfield, N. J.

Lathes, Metal Spinning

Boice-Crane Company, Toledo, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Swayne-Robinson & Co., Richmond, Ind.
Walker-Turner Co., Inc., Plainfield, N. J.

Lathes, Precision

Ames, B. C., Co., Waltham, Mass.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hjorth Lathe and Tool Co., Woburn, Mass.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Lodge & Shipley Machine Tool Co., The, Cincinnati, Ohio.
Millers Falls Co., Greenfield, Mass.
Monarch Machine Tool Co., The, Sidney, O.
Moseley Lathe Co., The, Elgin, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.

Lathes, Screw Cutting

Atlas Press Co., Kalamazoo, Mich.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Lodge & Shipley Machine Tool Co., The, Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend.
Warner & Swasey Co., The, Cleveland, O.

Lathes, Speed

Atlas Press Co., Kalamazoo, Mich.
Boice-Crane Co., Toledo, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Monarch Machine Tool Co., The, Sidney, O.
Oliver Machinery Co., Grand Rapids, Mich.
Oliver, W. W., Mfg. Co., The, Buffalo.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Schauer Machine Co., The, Cincinnati, O.
Sheldon Machine Co., Chicago, Ill.

Lathes, Tool Room

Ames, B. C. Co., Waltham, Mass.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Lodge & Shipley Machine Tool Co., The, Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Rockford Machine Tool Co., Rockford, Ill.
South Bend Lathe Works, South Bend.

Lathes, Turret

Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Greenlee Bros. & Co., Rockford, Ill.
National Acme Co., The, Cleveland, Ohio.
South Bend Lathe Works, South Bend, Ind.
Warner & Swasey Co., The, Cleveland, O.

Lathes, Wood Turning

Atlas Press Co., Kalamazoo, Mich.
Blount, J. G., Co., Everett, Mass.
Boice-Crane Co., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Empire Machine Works, Mt. Morris, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heston & Anderson, Fairfield, Iowa.
Mattison Machine Works, Rockford, Ill.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Sheldon Machine Co., Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.

Lead, Battery

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Federated Metals Corp., New York, N. Y.
Consolidated Metal Corp., Detroit, Mich.
Eagle-Picher Lead Co., The, Chicago, Ill.
National Lead Co., New York, N. Y.

Lead Burning Outfits

Aeroil Burner Co., Inc., West New York.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
General Electric Co., Schenectady, N. Y.
Harris Calorific Co., The, Cleveland, O.
Imperial Brass Mfg. Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Littleford Bros., Cincinnati, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Turner Brass Works, The, Sycamore, Ill.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Lead, Calking

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Canfield, M. C., Sons Co., Newark, N. J.
Consolidated Metal Corp., Detroit, Mich.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
Hewitt Metals Corp., Detroit, Mich.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit, Mich.
Murphy, E. L., Chicago, Ill.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Prier Brass Mfg. Co., Kansas City, Mo.
Rochester Lead Works, Rochester, N. Y.
United American Metals Corp., Brooklyn.

Lead, White and Red

Eagle-Picher Lead Co., The, Chicago, Ill
National Lead Co., New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.

Lead Wool

(See "Wool, Lead")

Leather Belting

(See "Belting, Leather")

Leather for Belting and Specialties

Alexander Brothers, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Auburn Manufacturing Co., The, Hartford, Conn.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Degen-Fiege Belting Co., Los Angeles, Cal.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.

UMI

CHICAGO RAWHIDE

C R MECHANICAL LEATHERS

Mechanical Leathers

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BRANCHES EVERYWHERE

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Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rees', Hans, Sons, New York, N. Y.
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Schieren, Chas. A., Co., New York, N. Y.
Shingle-Gibb Leather Co., Philadelphia.
Taylor Belting Co., The, Indianapolis, Ind.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

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Alexander Brothers, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Brown, D. P., & Co., Philadelphia, Pa.
California Tanning Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Degen-Fiege Belting Co., Los Angeles, Cal.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Holyoke Belting Co., Holyoke, Mass.
Illinois Mechanical Leather Co., Chicago.
Johnson Belting Co., New York, N. Y.
McLanathan, F. W., & Son, Lawrence, Mass.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Western Rawhide & Belting Co., Milwaukee, Wis.
Williams, I. B., & Sons, Dover, N. H.

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Chicago Rawhide Mfg. Co., The, Chicago.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Illinois Mechanical Leather Co., Chicago.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Victor Manufacturing & Gasket Co., Chicago, Ill.

Leather Working Machinery

(See "Machines, Leather Working")

Leathers, Cup and Flange

Alexander Brothers, Inc., Philadelphia, Pa.
Auburn Manufacturing Co., The, Hartford, Conn.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Cook, H. N., Belting Co., San Francisco.
Degen-Fiege Belting Co., Los Angeles, Cal
Detroit Oak Belting Co., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Filer & Stowell Co., The, Milwaukee, Wis.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
MacWatty Belting Co., Providence, R. I.
Marietta Valve Cup Co., The, Marietta, O. (Cup only)
Mark, Clayton, & Co., Chicago, Ill.
Marsh, Chas. W., Co., Muskegon, Mich.
Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Stevens, Walden, Inc., Worcester, Mass.
Taylor Belting Co., The, Indianapolis, Ind.
Victor Manufacturing & Gasket Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.
Western Packing & Supply Co., New York.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Leathers, Friction

Alexander Brothers, Inc., Philadelphia.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
MacWatty Belting Co., Providence, R. I.
McLanathan, F. W., & Son, Lawrence, Mass.
Marsh, Chas. W., Co., Muskegon, Mich.
Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia.
Raniville, F., Co., Grand Rapids, Mich.
Rees', Hans, Sons, New York, N. Y.
Rahmann, Geo., & Co., New York, N. Y.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Rockwood Mfg. Co., Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Williams, I. B., & Sons, Dover, N. H.

Leathers, Hand

Alexander Brothers, Inc., Philadelphia, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Auburn Manufacturing Co., The, Hartford, Conn.
Baltimore Belting Co., Baltimore, Md.
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Capen Belting & Rubber Co., St. Louis.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Gross, Rubber Co., Sharon, Pa.
Himmelein & Bailey, Inc., Camden, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rees', Hans, Sons, New York, N. Y.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Safety Equipment Service Co., The, Cleveland, Ohio.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Leathers, Hydraulic

Alexander Brothers, Inc., Philadelphia.
Auburn Manufacturing Co., The, Hartford, Conn.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Degen-Fiege Belting Co., Los Angeles, Cal.
Detroit Oak Belting Co., Detroit, Mich.
Dudgeon, Richard, Inc., New York, N. Y.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.

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Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rahmann, Geo., & Co., New York, N. Y.
Rees', Hans, Sons, New York, N. Y.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Shingle-Gibb Leather Co., Philadelphia.
Taylor Belting Co., The, Indianapolis, Ind.
Victor Manufacturing & Gasket Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.
Western Packing & Supply Co., Chicago.
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Williams, I. B., & Sons, Dover, N. H.

Leathers, Polishing

Alexander Brothers, Inc., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Greene, Tweed & Co., New York, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
MacWatty Belting Co., Providence, R. I.
McLanathan, F. W., & Son, Lawrence, Mass.
Marsh, Chas. W., Co., Muskegon, Mich.
Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rees', Hans, Sons, New York, N. Y.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y. (Polishing and buffing leather)
Taylor Belting Co., The, Indianapolis, Ind.

Leathers, Valve and Plunger

Alexander Brothers, Inc., Philadelphia.
Auburn Manufacturing Co., The, Hartford, Conn.
Baltimore Belting Co., Baltimore, Md.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Degen-Fiege Belting Co., Los Angeles, Cal.
Deming Co., The, Salem, Ohio.
Detroit Oak Belting Co., The, Detroit.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mark, Clayton, & Co., Chicago, Ill.
Marsh, Chas. W., Co., Muskegon, Mich.
Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia.
Raniville, F., Co., Grand Rapids, Mich.
Rees', Hans, Sons, New York, N. Y.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Victor Manufacturing & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Leggings, Safety

Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago.
Industrial Gloves Corp., Danville, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.
Weldit Acetylene Co., Detroit, Mich.

Legs, Bench, Cast Iron and Steel

Angle Steel Stool Co., Plainwell, Mich.
Bond Foundry & Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago.
Delta Mfg. Co., Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Noyes, B. B., Co., Greenfield, Mass.
Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.

Legs, Lift Truck Platform

Fairbanks Co., The, New York, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.

Legs, Range Boiler

(See "Stands, Range Boiler")

Legs, Shop Seat, Cast Iron

Fairbanks Co., The, New York, N. Y.

Letters and Figures, Brass

Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Knight, H. W., & Son, Seneca Falls, N. Y.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Premax Sales Division, Chisholm-Ryder Co., Inc., Niagara Falls, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sargent & Co., New Haven, Conn.

Letters and Figures, Pattern

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hodell Chain Co., The, Cleveland, Ohio.
Knight, H. W., & Son, Seneca Falls, N. Y.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Ruleta Co., Inc., New York, N. Y.
Sargent & Co., New Haven, Conn.

Levels—Architects', Contractors', Surveyors' and Engineers'

Dietzgen, Eugene, Co., Chicago, Ill.
Gurley, W. & L. E., Troy, N. Y.
Keuffel & Esser Co., Hoboken, N. J.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Bench

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Carpenters' and Masons'

Detroit Metal Spinning Co., Inc., Detroit.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Peerless Level & Tool Co., The, Sterling, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Machinists'

Atlas Press Co., Kalamazoo, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Millwrights'

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
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Levels, Pocket

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Starrett, L. S., Co., The, Athol, Mass.

Levels, Track

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Klein-Logan Co., The, Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.

Lifters, Cotter Pin

Billings & Spencer Co., The, Hartford, Conn.
Vichek Tool Co., The, Cleveland, Ohio.

Lifters, Valve, Gasoline Engine

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
K-D Manufacturing Co., Lancaster, Pa.
Miller Tool & Mfg. Co., Inc., Detroit.
Millers Falls Co., Greenfield, Mass.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Vichek Tool Co., The, Cleveland, Ohio.

Lights, Carbide

Milburn, Alexander, Co., The, Baltimore, Md.
National Carbide Corp, New York, N. Y.

Lights, Electric

(See "Lamps, Electric")

Lights, Flare, Contractors'

Dietz, R. E., Co., New York, N. Y.
National Carbide Corp., New York, N. Y.
Sight Feed Generator Co., Richmond, Ind.
Toledo Pressed Steel Co., The, Toledo, O.

Lights, Flood, Acetylene

Giant Mfg. Co., Council Bluffs, Iowa.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Milburn, Alexander, Co., The, Baltimore, Md.
Sight Feed Generator Co., The, Richmond, Ind.

Lights, Flood, Electric

Asch & Co., Inc., New York, N. Y.
Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Curtis Lighting, Inc., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Keckley, O. C., Co., Chicago, Ill.

Lining, Boiler Furnace

Botfield Refractories Co., Philadelphia.
General Refractories Co., Philadelphia.
Green, A. P., Fire Brick Co., Mexico, Mo.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Quigley Co., Inc., New York, N. Y.

Lining, Brake

American Brake Materials Corp., Detroit.
Asbestos Mfg. Co., Huntington, Ind.
Burrell Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill. (Leather)
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Johns-Manville, New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Southern Friction Materials Co., Charlotte, N. C.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Lining, Chute, Rubber

Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Manhattan Rubber Mfg. Division, The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.

Lining, Sheave, Rubber

Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Goodyear Tire & Rubber Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Pyott Foundry & Machine Co., Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Thermoid Rubber Co., Trenton, N. J.

Lining, Sieve

Victor Balata & Textile Belting Co., New York, N. Y.

Links and Rings, Balata

Victor Balata & Textile Belting Co., New York, N. Y.

Links, Connecting, Chain

Billings & Spencer Co., The, Hartford, Conn.
Chain Belt Co., Milwaukee, Wis.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McMillan's, W. H., Sons, New York, N. Y.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Links, Fusible

Cleveland Chain & Mfg. Co., Cleveland.
General Electric Co., Schenectady, N. Y.
Grinnell Co., Inc., Providence, R. I.
Jefferson Electric Co., Bellwood, Ill.
Newhall Chain Forge & Iron Co., New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Safety Fire Extinguisher Co., The, New York, N. Y.
Western Products, Inc., Newcastle, Ind.

Links, Repair, Chain

American Chain Co., Inc., Bridgeport, Conn.
Billings & Spencer Co., The, Hartford, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., Cleveland, O.
Eberhard Mfg. Co., Cleveland, Ohio.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McMillan's, W. H., Sons, New York, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Thomas Laughlin Co., The, Portland, Me.
Upson-Walton Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.

Loaders, Car

American Logging Tool Co., Evart, Mich.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Lockers, Metal

All-Steel Equip Co., Inc., Aurora, Ill.
Art Metal Construction Co., Jamestown, N. Y.
Aurora Steel Products Co., Aurora, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.

Lockers, Steel, Engineers' Equipment

Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.

Locknuts, Machine

Acme Machine Products Co., Muncie, Ind.
American Nut and Bolt Fastener Co., Pittsburgh, Pa
Automatic Nut Co., Lebanon, Penn.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rawlplug Co., Inc., New York, N. Y.
S.K.F. Industries, Inc., Philadelphia, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Locknuts, Pipe

Acheson Manufacturing Co., Rankin, Pa.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kuhn Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
United Screw & Bolt Corp., Cleveland, Ohio.
Walworth Co., New York, N. Y.

Lock Washers

(See "Washers, Lock")

Locks, Door

Eagle Lock Co., Terryville, Conn. (Also cabinet locks)
Milwaukee Hardware Co., Wm. Bolles, Prop., Milwaukee, Wis.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent & Co., New Haven, Conn.
Yale & Towne Mfg. Co., The, Stamford, Conn.

Locks, Nut

(See "Washers, Lock" and "Washers, Spring")

Long Screws

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Everitt Co., The, Boston, Mass.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, The, Baltimore, Md. (Brass)
United American Bosch Corp., Springfield, Mass.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.

Louvres

(See "Fans")

Lubricating Systems, High Pressure

Adams Grease Gun Corp., New York, N. Y.
Bowser, S. F., and Co., Fort Wayne, Ind.
Gits Bros. Mfg. Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Manzel Brothers Co., Buffalo, N. Y.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
United American Bosch Corp., Springfield, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Victor Lubricator Co., Chicago, Ill.

Lubricants

(See "Grease," "Oil," "Compounds" and "Dressing")

Lubricators

(For lubricators not listed in the following classifications, see "Oilers.")

Lubricators, Air Brake

American Injector Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keckley, O. C., Co., Chicago, Ill.

Lubricators, Air Compressor

American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Kellogg Manufacturing Co., Rochester.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manzel Brothers Co., Buffalo, N. Y.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Powell, Wm., Co., The, Cincinnati, Ohio.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Automatic Overhead Conveyor

Saginaw Stamping & Tool Co., Saginaw, Mich.

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DETROIT, MICH.

Victor Lubricator Company, Chicago.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Lubricators, Candle, for Shafting and Loose Pulleys

Hunter Pressed Steel Co., Lansdale, Pa.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Cylinder

American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Manzel Brothers Co., Buffalo, N. Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
United American Bosch Corp., Springfield, Mass.

Lubricators, Engine

American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Fort Wayne.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Swift Lubricator Co., Elmira, N. Y.
United American Bosch Corp., Springfield, Mass.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Force Feed

Bowser, S. F., and Co., Fort Wayne, Ind.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Greene, Tweed & Co., New York, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Madison-Kipp Corp., Madison, Wis.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Swift Lubricator Co., Elmira, N. Y.
Torrington Manufacturing Co., The, Torrington, Conn.
Turner Brass Works, The, Sycamore, Ill.
Victor Lubricator Co., Chicago, Ill.

Lubricators and Oil Cups, Gas Engine

American Injector Co., Detroit, Mich.
Bay State Stamping Co., Worcester, Mass.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Lubricators, Graphite

Bowser, S. F., & Co., Fort Wayne, Ind.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Sauereisen Cements Co., Pittsburgh, Pa.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.

Lubricators, Hand Pressure

Adams Grease Gun Corp., New York, N. Y.
American Injector Co., Detroit, Mich.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Eagle Manufacturing Co., Wellsburg, W. Va.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Lidseen, Gustave, Inc., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Plews Oiler Co., Minneapolis, Minn.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Swift Lubricator Co., Elmira, N. Y.

Lubricators, Locomotive

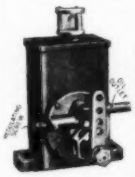
Detroit Lubricator Co., Detroit, Mich.
Eagle Manufacturing Co., Wellsburg, W. Va.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
United American Bosch Corp., Springfield, Mass.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Loose Pulley

(See "Cups, Oil, Loose Pulley" and "Lubricators, Candle")

Lubricators, Machinery, High Pressure

Adams Grease Gun Corp., New York, N. Y.
Bowser, S. F., & Co., Fort Wayne, Ind.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Lidseen, Gustave, Inc., Chicago, Ill.
McCord Radiator & Mfg. Co., Detroit.
Manzel Brothers Co., Buffalo, N. Y.



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that deliver the *right amount* of oil, in the *right place*, at the *right time*; that's the kind we have been making

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They eliminate waste and worry, and bring smiles to the face of the engineer.

Sight-feed Glass under no pressure—Nothing to break—Requires no draining—No steam engine, steam pump, air or ammonia compressor complete without one.

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Swift Lubricator Co., Elmira, N. Y.
United American Bosch Corp., Springfield, Mass.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Multiple

Bowser, S. F., and Co., Fort Wayne, Ind.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Lunkenheimer Co., The, Cincinnati, O.
Manzel Brothers Co., Buffalo, N. Y.
McCord Radiator & Mfg. Co., Detroit.
Nugent, Wm. W., & Co., Chicago, Ill.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Plain Engine

Bowser, S. F., & Co., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Lubricators, Shafting

American Injector Co., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Trico Fuse Mfg. Co., Milwaukee, Wis.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Sight Feed

American Injector Co., Detroit, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hills-McCanna Corp., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Swift Lubricator Co., Elmira, N. Y.
Trico Fuse Mfg. Co., Milwaukee, Wis.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Telescopic

Bowser, S. F., and Co., Fort Wayne, Ind.
Gits Bros. Mfg. Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.

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MANHEIM, LANC. CO., PA.

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Consolidated Brass Co., Detroit, Mich.
Edna Brass Mfg., Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.

Lugs, Boiler and Tank

Illinois Malleable Iron Co., Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Lugs, Thread

Ideal Commutator Dresser Co., Sycamore, Ill.

Machinery, Power Transmission

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Falk Corp., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Horsburgh & Scott Co., The, Cleveland, O.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lewellen Manufacturing Co., Columbus, Ind.
Link-Belt Co., Chicago, Ill.
Link-Belt Co., (Pacific Division), San Francisco, Calif.
Medart Co., The, St. Louis, Mo.
Moore-Master Mfg. Co., Chicago, Ill.
Morse Chain Co., Ithaca, N. Y.
Murray, D. J., Mfg. Co., Wausau, Wis.
Pyott Foundry and Machine Co., Chicago.

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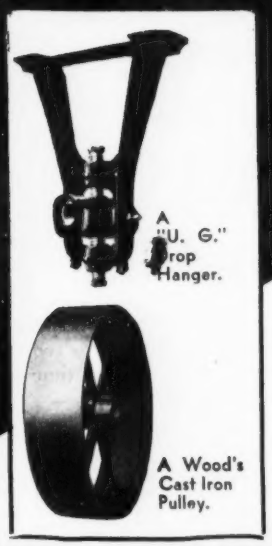

A "U. G." Drop Hanger.

A Wood's Cast Iron Pulley.

Leading the power transmission equipment field, today, are: WOOD'S Shafting, Hangers, Collars, Pulleys, Friction Clutches, Ball Bearings, Flexible Couplings, Rope Sheaves, Pillow Blocks, Belt Contactors, V-Belts, V-Belt Sheaves and complete V-Belt Drives . . . they sell readily on their reputation for proven superiority in performance. Volume PLUS Profit is yours!

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Rockwood Mfg. Co., Indianapolis, Ind.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Schultz, A. L. & Son, Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines or Ways, Balancing

Anderson Bros. Mfg. Co., Rockford, Ill.
Gisholt Machine Co., Madison, Wis.
Sunstrand Machine Tool Co., Rockford, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Machines, Band Saw, for Metal

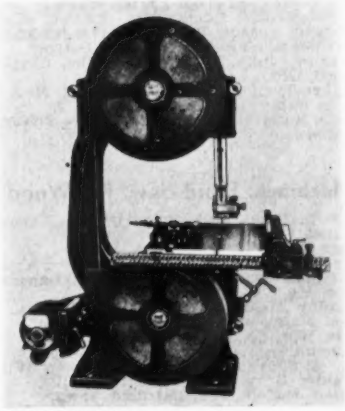
Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Avey Drilling Machine Co., The, Cincinnati, Ohio.
Beach Mfg. Co., Montrose, Pa.
Boice-Crane Company, Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Channon, J. H., Corp., Chicago, Ill.
Colladay Machine Works, Philadelphia, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
Delta Mfg. Co., Milwaukee, Wis.
Jones Superior Machine Co., Chicago, Ill.
Metal Saw & Machine Co., Inc., Springfield, Mass.

(Continued on page 218)

Turn to the "Trade Name Index" for trade names

WALKER-TURNER

BAND SAWS



THREE MODELS:
No. BN1125—16"
An outstanding, heavy duty saw for all types of industrial use.
No. BN725—12"
The most completely equipped band saw built to sell at anywhere near its price.
No. BN550—10"
For light work or occasional use this small saw offers unusual possibilities for sales.
Walker-Turner also offers two engineered Jig Saws which have been widely accepted.

The new 1937 Walker-Turner catalog describes the full line.

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Plainfield, N. J.

Engineered POWER TOOLS

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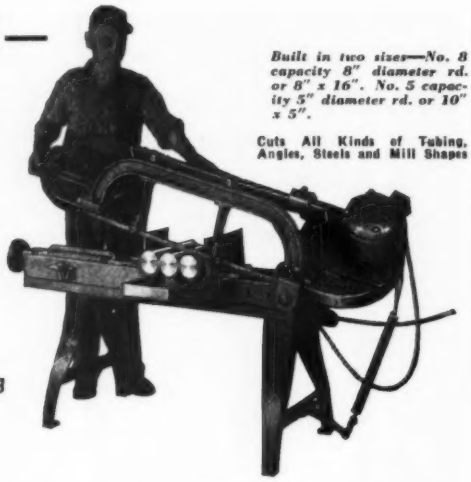

Built in two sizes—No. 8 capacity 8" diameter rd. or 8" x 16". No. 5 capacity 5" diameter rd. or 10" x 5".

Cuts All Kinds of Tubing, Angles, Steels and Mill Shapes

WELLS Metal Cutting
BAND SAW

Extreme precision and ability to run continuously at high speed without coolant make the Wells Band Saw an invaluable tool for reducing production and maintenance costs. Users report savings in time and labor from 30 to 50%.

Easy to operate. Any workman can use it without lengthy special instruction. Portable. Can be moved anywhere in the plant at a moment's notice. Sturdy construction. Designed for hard usage and long life. Low cost.

Increase your profits by adding this saw to your line.

WELLS MANUFACTURING CORP.
315 Seventh Avenue **Three Rivers, Michigan**

Machines, Band Saw, for Metal

(Continued from page 217)

Moak Machine & Tool Co., Port Huron, Mich.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tessmer Machine & Tool Co., Detroit.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.
Walls Sales Corp., New York, N. Y.
Wells Manufacturing Corp., Three Rivers, Mich.

Machines, Band Saw, for Wood

Allis-Chalmers Manufacturing Co., West Allis, Wis. (Sawmill)
Beach Mfg. Co., Montrose, Pa.
Boice-Crane Co., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia.
Covel Hanchett Co., Big Rapids, Mich.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis.
Filer & Stowell Co., The, Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Lane Mfg. Co., Montpelier, Vt.
Master Woodworker Mfg. Co., Detroit.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Towsley, John T., Mfg., Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Walls Sales Corp., New York, N. Y.
Wood, H. C., Machine Works, San Francisco, Calif.

Machines, Belt Lacing

(See "Lacers, Belt")

Machines, Bending, Pipe

American Foundry Equipment Co., Mishawaka, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Chicago Nipple Mfg. Co., Chicago, Ill.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Leonard Machine Works, Lansdowne, Pa.
Lidseen, Gustave, Inc., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O. (For copper pipe)
Sampson Tool Co., Inc., New York, N. Y.
Skinner, M. B., Co., South Bend, Ind.
Tallman Mfg. Co., Shelbyville, Ill.
Tube-Turns, Inc., Louisville, Ky.
Watson-Stillman Co., The, Roselle, N. J.
Wood, R. E., & Sons, Chester, Pa.

Machines, Bending and Straightening, for Beam, Rail, Rod or Shaft

Buffalo Forge Co., Buffalo, N. Y.
Dudgeon, Richard, Inc., New York, N. Y.
Farrell-Birmingham Co., Inc., Ansonia, Conn.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lidseen, Gustave, Inc., Chicago, Ill.
Medart Co., St. Louis, Mo.
Pels, Henry, & Co., Inc., New York, N. Y.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Mfg. Co., Shelbyville, Ill.
Watson-Stillman Co., The, Roselle, N. J.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Bending, "U"

American Foundry Equipment Co., Mishawaka, Ind.
Champion Blower and Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Mo.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Parker Appliance Co., The, Cleveland, O.
Rock River Machine Co., Janesville, Wis.
Tube-Turns, Inc., Louisville, Ky.
Wood, R. E., & Sons, Chester, Pa.

Machines, Blasting

Hercules Powder Co., Inc., Wilmington, Del.

Machines—Bolt, Nut and Rivet

(See "Bulldozers," "Clippers—Bolt, Rivet and Wire," "Dies," "Facers, Nut," "Headers and Reheaders, Bolt," "Heads, Die," "Machines, Tapping," etc.)

Machines—Boring, Drilling and Milling Combined

Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ingersoll Milling Machine Co., The, Rockford, Ill.
International Nickel Co., Inc., The, New York, N. Y.
Knight, W. B., Machinery Co., St. Louis.
Moline Tool Co., Moline, Ill.
Pratt & Whitney Co., Hartford, Conn.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.

Machines, Boring, Wood

Beach Mfg. Co., Montrose, Pa.
Boice-Crane Co., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Chattanooga Machinery Co., Chattanooga, Tenn.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill. (Joist and rafter)
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Manufacturing Co., Shelbyville, Ill. (For borrowing ties)
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D. & Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco., Calif.

Machines, Boring and Turning

Barnes Drill Co., Rockford, Ill.
Bickford, H., & Co., Lakeport, N. H.
Chattanooga Machinery Co., Chattanooga, Tenn.
Gisholt Machine Co., Madison, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Brazing, Kerosene and Gasoline

Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit.
Covel-Hanchett Co., Big Rapids, Mich.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.

Machine, Broaching

Burr, John T., & Son, Brooklyn, N. Y.
Hannifin Mfg. Co., Chicago, Ill.

Machines, Buffing, Electric, Portable

Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Delta Mfg. Co., Milwaukee, Wis.
Dumore Co., Racine, Wis.
Haskins, R. G., Co., Chicago, Ill.
Hisey-Wolf Machine Co., Cincinnati, Ohio.
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Marathon Electric Manufacturing Corp., Wausau, Wis.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., Cincinnati, Ohio.
Standard Electrical Tool Co., Cincinnati.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

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Buffing and Polishing Lathes—belted motor drive—direct driven—½ H.P. to 20 H.P.

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1912—25 YEARS SERVICE TO INDUSTRY—1937

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Valley Electric Corp., St. Louis, Mo.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Wodack Electric Tool Corp., Chicago, Ill.

Machines, Buffing, Flexible Shaft

Flexible Shafts, Inc., Binghamton, N. Y.
Haskins, R. G., Co., Chicago, Ill.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Machines, Buffing, Pneumatic

Buckeye Portable Tool Co., The, Dayton, O.
Chicago Pneumatic Tool Co., New York.
Covel-Hanchett Co., Big Rapids, Mich.
Dallett Co., The, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Mall Tool Co., Chicago, Ill.
Simplex Spray Equipment Co., Chicago.

Machines, Buffing and Polishing, Stationary

Baldor Electric Co., St. Louis, Mo.
Black & Decker Mfg. Co., Towson, Md.
Blount, J. G., Everett, Mass.
Brown & Sharpe Mfg. Co., Providence.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Cutter Machine Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Divine Brothers Co., Utica, N. Y.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Forbes & Myers, Worcester, Mass.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Leiman Bros., Inc., Newark, N. J.
Marathon Electric Manufacturing Corp., Wausau, Wis.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Moak Machine & Tool Co., Port Huron, Mich.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Pratt & Whitney Co., Hartford, Conn.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Robinson Mfg. Co., Waterbury, Conn.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Schauer Machine Co., The, Cincinnati, O.
Speedway Manufacturing Co., Cicero, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland.
U. S. Electrical Motors, Inc., Los Angeles.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Valley Electric Corp., St. Louis, Mo.
Van Dorn Electric Tool Co., Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Machines, Burnishing

(See "Barrels, Burnishing," and "Machines, Buffing and Polishing")

Machines, Burring

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt & Whitney Co., Hartford, Conn.

Machines, Centering

Pratt & Whitney Co., Hartford, Conn.
Sundstrand Machine Tool Co., Rockford, Ill.

Machines, Chucking

(See "Lathes, Chucking," and "Lathes, Turret")

Machines, Cleaning, for Metal Parts

American Foundry Equipment Co., Mishawaka, Ind.
Baird Machine Co., The, Bridgeport, Conn.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Leiman Bros., Inc., Newark, N. J.
Mall Tool Co., Chicago, Ill.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Ruemelin Mfg. Co., Milwaukee, Wis.
Schauer Machine Co., The, Cincinnati, O.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Machines, Counting

Durant Mfg. Co., Milwaukee, Wis.
Hart, R. E., Mfg. Co., Battle Creek, Mich.
Veeder-Root, Inc., Hartford, Conn.

Machines, Cutting, Electric—Marble, Slate, Stone, Tile, Etc.

Campbell, Andrew C., Division, Bridgeport, Conn.
Cincinnati Electrical Tool Co., Cincinnati, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Machines, Cutting, Gear

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R.I.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Union Twist Drill Co., Athol, Mass.

Machines, Cutting and Threading, Pipe

American Die & Tool Co., Inc., Reading, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.

(Continued on page 220)

Manufacturers'

Street Addresses

will be found in the

"Names and Addresses"

Section

Handy

Pedestal and Bench Type
BUFFERS

Ruggedly Built
Totally Enclosed
Ball-Bearing
1-year guarantee

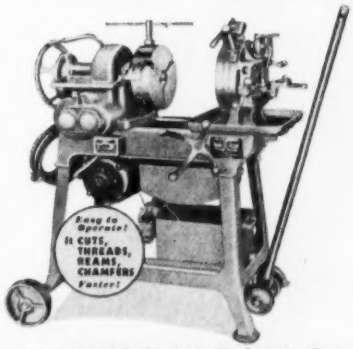
2 H.P.
3 phase
1725 R.P.M.
Heavy Duty
$141.00
including starting switch

Write for bulletins on complete line of HANDY Buffers (1/3 h.p. to 5 h.p.) and Grinders (bench and pedestal types, 6" to 12")

BALDOR ELECTRIC COMPANY
4364 Duncan Avenue ST. LOUIS, MO.

Handy **GRINDERS**

Tell Your Customers about the
RED-E-HAUL
COMPLETE PIPE FITTERS MACHINE



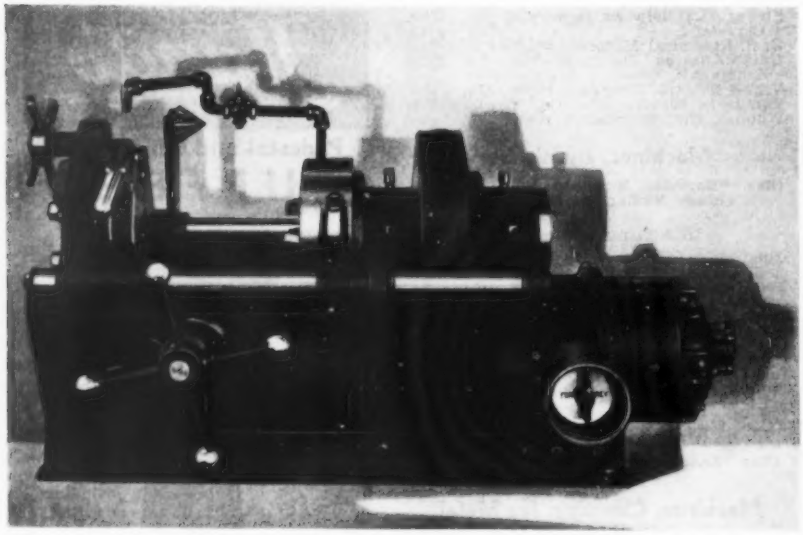
Most Powerful, Fastest, Easiest to Operate PORTABLE POWER PIPE THREADER on the market. Combines Speed, Power, Accuracy and Convenience.

Equipped with the
Famous* DOUBLE-QUICK *Automatic Die Head
No Die Changing
No "Backing Off"
Accurate Size, Uniform Length Threads

Satisfaction Guaranteed. Can be had as Auto Trailer. Effects tremendous labor saving on 2½ to 12" pipe.

Write for Prices and Complete Information

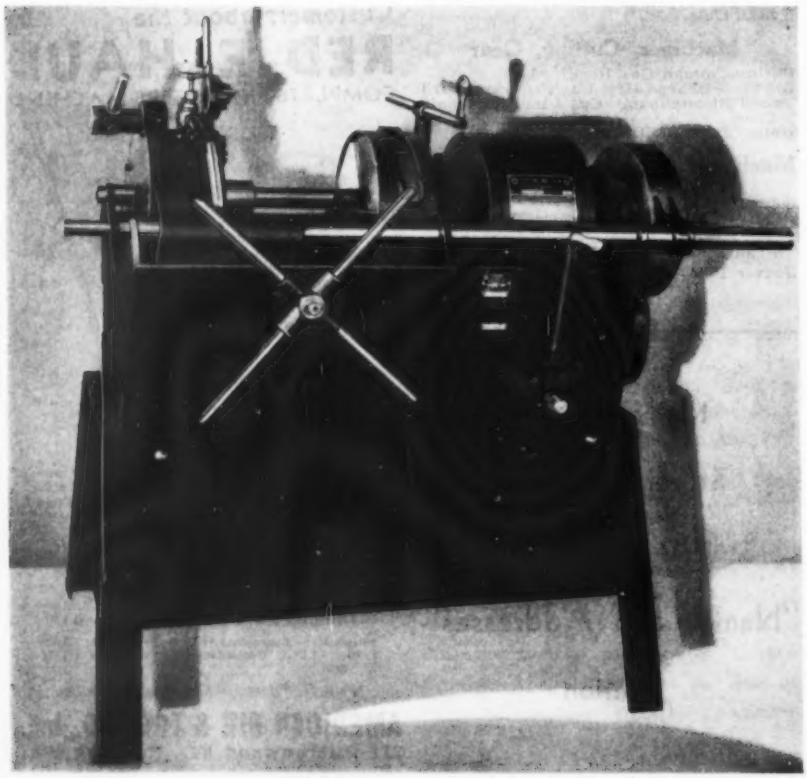
AMERICAN DIE & TOOL CO., Inc.
211 Buttonwood St., Reading, Pa.



"TOLEDO" POWER PIPE MACHINES

"TOLEDO" power pipe machines in the popular ranges are speedy, accurate and dependable. Compact, easy to operate. Cut, thread and ream pipe faster. No. 999, shown above, is a small compact portable machine, capacity up to 2". 2" High Speed, a high production machine of 2" capacity and down. No. 1-2-4 high speed, high production machine is shown below and cuts, threads and reams pipe up to 4" in record time. All these machines use the "TOLEDO" hinge type quick-opening die heads here illustrated.

THE TOLEDO PIPE THREADING MACHINE COMPANY
TOLEDO, OHIO **NEW YORK OFFICE: 72 LAFAYETTE ST.**



Machines, Cutting and Threading, Pipe

(Continued from page 219)

Chicago Pipethread Machine Co., Racine, Wis. (Power pipe threading machines)
Curtis & Curtis Co., The, Bridgeport, Conn.
Ellis & Ford Mfg. Co., Detroit, Mich.
Geometric Tool Co., The, New Haven, Conn.
Merrell Manufacturing Co., The, Toledo, O.
Nye Tool & Machine Works, The, Chicago.
Oster Manufacturing Co., The, Cleveland, Ohio.
Peerless Machine Co., Racine, Wis. (Power pipe threading machines)
Ridge Tool Co., Elyria, Ohio.
Strickler, W. W., & Brothers, Columbus, O. (Cutting only)
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Machines, Cutting-Off

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R.I.
Buffalo Forge Co., Buffalo, N. Y.
Burr, John T., & Son, Brooklyn, N. Y.
Campbell, Andrew C., Division of American Chain Co., Inc., Bridgeport, Conn.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Gundlach, T. J., Machine Co., Belleville, Ill.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mall Tool Co., Chicago, Ill.
Modern Machine Tool Co., Jackson, Mich. (Lathe type)
Paulus, Jos. C., & Co., Philadelphia, Pa.
Peerless Machine Co., Racine, Wis.
Portable Power Tool Corp., Warsaw, Ind.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Torchweld Equipment Co., Chicago, Ill.
Wells Manufacturing Corp., Three Rivers, Mich.

Machines, Die Filing and Milling

Billings & Spencer Co., The, Hartford, Conn.
Colton, Arthur, Co., Detroit, Mich. (Filing)
Foley Mfg. Co., Minneapolis, Minn.
Illinois Tool Works, Chicago, Ill.
LaPorte Machine & Tool Co., LaPorte, Ind. (Die filing and sawing)
Mall Tool Co., Chicago, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Robinson Mfg. Co., Waterbury, Conn.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Thurston Mfg. Co., Providence, R. I.

Machines, Die Sinking

Billings & Spencer Co., The, Hartford.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Knight, W. B., Machinery Co., St. Louis.
LaPorte Machine & Tool Co., LaPorte, Ind.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Machines, Doweling

Gustafson & Scott Mfg. Co., Chicago, Ill.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Machines, Drilling, Automatic

Avey Drilling Machine Co., The, Cincinnati, Ohio.
Baker Bros., Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Burke Machine Tool Co., The, Conneaut, O.
Greenlee Bros. & Co., Rockford, Ill.
Independent Pneumatic Tool Co., Chicago.
Moline Tool Co., Moline, Ill.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.

Sell OSTER THREADING EQUIPMENT WILLIAMS

and cash in on this list of assets

COMPLETE LINE UNDER ONE TRADE-MARK

Hand and power pipe tools and machines . . . bolt machines . . . pipe-welding equipment . . . all under a single well-known name.

WIDEST MARKET

The broad variety of products, serving trades and industries of the most varied character, furnishes a maximum number of prospects.

DEPENDABLE VOLUME

The popularity of Oster-Williams tools and machines, based on Oster's 43 years of top-quality performance and William's 35 years of leadership in the large machine field, is potent assurance of consistent volume.

SATISFIED CUSTOMERS . . . . REPEAT BUSINESS

To prove this claim in convincing fashion you need only to ask users how many Oster-Williams tools and machines they own.

FREEDOM FROM COMPLAINTS

Skilful engineering, sturdy construction, and simplicity of operation mean that Oster-Williams equipment makes good promptly and stays in profitable service.

CONSTANTLY AHEAD OF THE PROCESSION

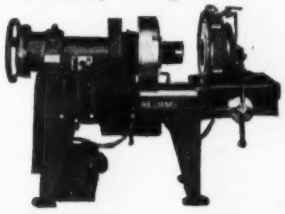
Unceasing engineering research contributes a constant flow of new items to sell as well as new sales-points for old lines.

ACTIVE SALES-SUPPORT

Publication advertising, direct mail literature, and aggressive direct sales-cooperation of representatives using demonstration cars go far to insure success with the Oster-Williams line.

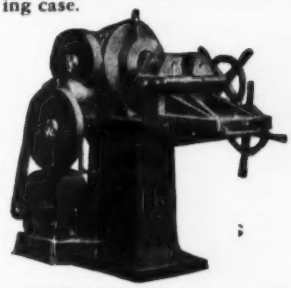
At the right of the page are five of the many sales-opportunities in the Oster-Williams line, each furnishing distinct points of superiority for forceful sales-presentations and demonstrations. Inquiries concerning individual items or asking detailed information about the complete line will receive prompt attention.

"LEADER" . . . a perfected receding type die-stock which assures easy-cutting.



"WILCO" . . . an efficient, compact pipe-threading machine for maintenance work.

"CHIP CHASER" . . . a solid die-stock, complete with carrying case.



"OSTER 300" . . . a general purpose pipe machine built in 4 sizes.

"BULLDOG" . . . the world-popular, quick-opening adjustable die-stock.

THE OSTER MANUFACTURING COMPANY

Sales Office: 2041 East 61st Street, Cleveland, Ohio
Factories: Erie, Pennsylvania, and Cleveland, Ohio
THREADING SPECIALISTS SINCE 1893

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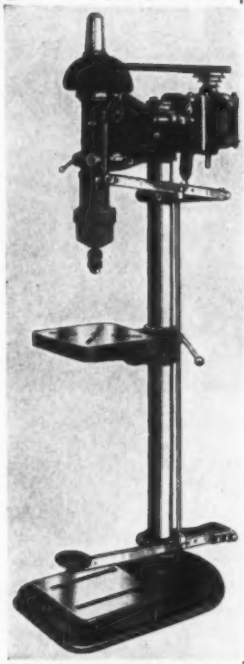
Atlas DRILL PRESSES

TAPPING MACHINES

The low cost Atlas drill presses and tapping attachments will now enable you to provide several machines in the tool room and on production work where before the cost was prohibitive on certain jobs.

Atlas tapping machines are built for precision tapping at high speeds. Construction simplifies both "through" and "bottom" tapping and assures smooth sensitive feeding. Prices are from $89.95 to $104.95 complete less motor. Write today. We will be glad to discuss your production problems with you.

SEND FOR 1937 CATALOG Mailed FREE



ATLAS PRESS CO.
1207 N. PITCHER ST.
KALAMAZOO, MICH.
NEW YORK 130 W. 42nd St. CHICAGO 35 E. Wacker Dr.

Machines, Drilling, Bench

Atlas Press Co., Kalamazoo, Mich.
Avey Drilling Machine Co., The, Cincinnati, Ohio.
Barnes, W. F. & John, Co., Rockford, Ill.
Black & Decker Mfg. Co., The, Towson, Md.
Boice-Crane Co., Toledo, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burke Machine Tool Co., The, Conneaut, O.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Delta Mfg. Co., Milwaukee, Wis.
Dumore Co., The, Racine, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Leiman Bros., Inc., Newark, N. J.
Milwaukee Electric Tool Corp., Milwaukee.
North Bros. Mfg. Co., Philadelphia, Pa.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Reed, Francis, Co., Worcester, Mass.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electrical Tool Division, The Stanley Works, New Britain, Conn.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.

Machines, Drilling, Blacksmiths'

(See "Machines, Drilling, Post or Wall")

Machines, Drilling, Boilermakers'

Buffalo Forge Co., Buffalo, N. Y.
Flexible Shafts, Inc., Binghamton, N. Y.
Independent Pneumatic Tool Co., Chicago.
Moline Tool Co., Moline, Ill.
Portable Power Tool Corp., Warsaw, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Machines, Drilling—Breast, Chain and Hand

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Drilling, Close Quarter

Chicago Pneumatic Tool Co., New York.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Van Dorn Electric Tool Co., The, Towson, Md.

Machines, Drilling, Coal

Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Hisey-Wolf Machine Co., The, Cincinnati.
Ingersoll-Rand Co., New York, N. Y.
Leetonia Tool Co., The, Leetonia, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Drilling, Electric, Portable

(See "Drills, Electric, Portable")

WALKER-TURNER

DRILL PRESSES

Floor and Bench Models

No. D925—Max. distance chuck to table—12". Six-splined spindle reduces vibration to minimum. Equipped with four SKF precision ball bearings, Jacobs (0 to ½") Key Chuck. No other drill press can compare with this one at the price.

No. D710—an excellent drill press for less severe work. Six-splined spindle, four SKF ball bearings, Jacobs Key Chuck.

And for light or occasional work, a small drill press No. D570 is available.

The new 1937 catalog describes the complete Walker-Turner line.

WALKER-TURNER CO., INC.
Plainfield, N. J.

Engineered POWER TOOLS

Machines, Drilling, Electric, Stationary

Barnes, W. F., & John Co., Rockford, Ill.
Boice-Crane Co., Toledo, Ohio.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Louisville Electric Manufacturing Co., Louisville, Ky.
Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sibley Machine & Foundry Co., South Bend, Ind.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D. & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines, Drilling, Flexible Shaft

Dumore Co., The, Racine, Wis.
Haskins, R. G., Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Machines, Drilling, Friction Disc Drive

Barnes, W. F. & John, Co., Rockford, Ill.
Clark, James, Jr. Electric Co., Louisville.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.

Machines, Drilling, Gang

(See "Machines, Drilling, Multiple Spindle or Gang")

Machines, Drilling and Tapping, for Gas and Water Mains

Hays Manufacturing Co., Erie, Pa.
Mueller Co., Decatur, Ill.
Portable Power Tool Corp., Warsaw, Ind.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Machines, Drilling, Heavy Duty

Baker Bros., Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Barnes, W. F. & John, Co., Rockford, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Moline Tool Co., Moline, Ill.
Portable Power Tool Corp., Warsaw, Ind.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sibley Machine & Foundry Co., South Bend, Ind.

Machines, Drilling, Horizontal

Baird Machine Co., The, Bridgeport, Conn.
Baker Bros., Inc., Toledo, Ohio.
Barnes, W. F. & John, Co., Rockford, Ill.
Moline Tool Co., Moline, Ill.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sundstrand Machine Tool Co., Rockford.

Machines, Drilling, Multiple Spindle or Gang

Avey Drilling Machine Co., The, Cincinnati, Ohio.
Baird Machine Co., The, Bridgeport, Conn.
Baker Brothers, Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Barnes, W. F. & John, Co., Rockford, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Moline Tool Co., Moline, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed, Francis, Co., Worcester, Mass.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Sampson Tool Co., Inc., New York, N. Y.

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Sibley Machine & Foundry Co., South Bend, Ind.
Winterhoff Tool & Machine Co., Elkhart, Ind.

Machines, Drilling, Pneumatic

Buckeye Portable Tool Co., The, Dayton, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Dallett Co., The, Philadelphia, Pa.
Gardner-Denver Co., Quincy, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Schramm, Inc., West Chester, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Drilling, Post or Wall

Black & Decker Mfg. Co., The, Towson, Md.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Hisey-Wolf Machine Co., The, Cincinnati.
Milwaukee Electric Tool Corp., Milwaukee.
Portable Power Tool Corp., Warsaw, Ind.
Schauer Machine Co., The, Cincinnati, O.
Sibley Machine & Foundry Co., South Bend, Ind.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Drilling, Radial

Black & Decker Mfg. Co., The, Towson, Md.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines, Drilling, Railroad Track

Aldon Co., The, Chicago, Ill.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Hisey-Wolf Machine Co., The, Cincinnati.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Mall Tool Co., Chicago, Ill.
Moline Tool Co., Moline, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Tallman Manufacturing Co., Shelbyville, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Machines, Drilling, Rock

Buffalo Forge Co., Buffalo, N. Y.
Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Dallett Co., The, Philadelphia, Pa.
Gardner-Denver Co., Quincy, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Drilling, Sensitive

Ames, B. C., Co., Waltham, Mass.
Avey Drilling Machine Co., The, Cincinnati, Ohio.
Boice-Crane Co., Toledo, Ohio.
Burke Machine Tool Co., The, Conneaut, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Clark, James, Jr., Electric Co., Louisville
Delta Mfg. Co., Milwaukee, Wis.
Dumore Co., The, Racine, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Leiman Bros., Inc., Newark, N. J.
Pratt & Whitney Co., Hartford, Conn.
Reed, Francis, Co., Worcester, Mass.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Rockford Machine Tool Co., Rockford, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sibley Machine & Foundry Co., South Bend, Ind.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Walker-Turner Co., Plainfield, N. J.
Wallace, J. D. & Co., Chicago, Ill.
Winterhoff Tool & Machine Co., Elkhart, Ind.

Machines, Drilling, Upright

Atlas Press Co., Kalamazoo, Mich.
Baker Brothers, Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Barnes, W. F. & John, Co., Rockford, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Clark, James, Jr., Electric Co., Louisville.
Delta Mfg. Co., Milwaukee, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Leiman Bros., Inc., Newark, N. J.
Moline Tool Co., Moline, Ill.
Richards Badger Packard Co., Milwaukee.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford, Ill.
Rockford Machine Tool Co., Rockford, Ill.
Sibley Machine & Foundry Co., South Bend, Ind.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.

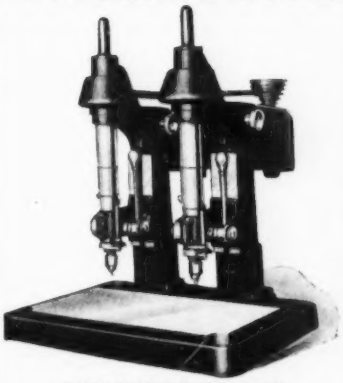
Machines and Tools, Drilling, Well

Crucible Steel Co. of America, New York.
Independent Pneumatic Tool Co., Chicago.
Loane Engineering Co., Baltimore, Md.
Loomis Machine Co., Tiffin, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Filing and Setting, Band Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Foley Manufacturing Co., Minneapolis.

"Buffalo" Hi-Speed Sensitive Production Drills



Buffalo Two-Spindle No. 14 Drill

Available in complete lines running from No. 12 High Speed to No. 22 Heavy Duty Production Drills, the Buffalo line offers unusual opportunity for the jobber who wants to sell high-quality single and multi-spindle drills for general production use. Single spindle bench and floor types round out the Buffalo line, giving you a drill for every requirement.

Entire line has latest design bearings, heavy construction throughout, fine performance assured.

Write for bulletins if you are interested in these quality tools.

BUFFALO FORGE COMPANY
478 Broadway Buffalo, N. Y.

Bench & Floor Types

1905 Strand 1936

FLEXIBLE SHAFTS and MACHINES of the Highest Quality

HIGH GRADE CONCERNS Want HIGH GRADE MACHINES Sell them the STRAND Make Them Like You and Your Company

Salesmen who sell high grade equipment are always welcome in the purchasing agent's office and respected by the superintendent.

You can make the grade by selling the STRAND

N. A. STRAND & CO.
5001 No. Lincoln St. Chicago

Holcomb, A. L., Co., Grand Rapids, Mich.
Rogers, Samuel, & Co., Buffalo, N. Y.
Swett, Frank W., & Son, Chicago, Ill.

Machines, Filing, Sawmill and Machine Shop

Atkins, E. C., and Co., Indianapolis, Ind.
Crowell, D. J., & Crowell, F. J., Buffalo.
Filer & Stowell Co., The, Milwaukee, Wis.
Foley Manufacturing Co., Minneapolis.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Swett, Frank W., & Son, Chicago, Ill.

Machines, Flexible Shaft

Binghamton Flexible Shaft Co., Johnson City, N. Y.
Dallett Co., Philadelphia, Pa. (Electric)
Dumore Co., The, Racine, Wis.
Haskins, R. G., Co., Chicago, Ill.
Ideal Commutator Dresser Co., Sycamore, Ill.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.

(Continued on page 224)

JARVIS
FLEXIBLE SHAFTS and MACHINES

JARVIS BIAX

For Grinding, Polishing, Rotary filing, etc.

For Screw Driving and Remote Control

All Jarvis-Biax products are manufactured by

CHAS. JARVIS CO.
GILDERSLEEVE, CONN.

WALKER-TURNER

HEAVY DUTY FLEXIBLE SHAFT

For sanding, grinding, drilling and buffing this tool offers more for the money than any other flexible shaft. Telescopic column enables motor and shaft to be raised 15 inches. Height, normal position, 42", raised position, 57".
Deep base serves as tool tray.
Large, heavy duty SKF ball bearing hand piece with ½" spindle.

Fully described in the new 1937 Walker-Turner catalog.

WALKER-TURNER CO., INC.
Plainfield, N. J.

Engineered **POWER TOOLS**

Machines, Flexible Shaft

(Continued from page 223)

Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Illinois.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Machines, Floor Surfacing, Scrubbing and Polishing

Mall Tool Co., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Machines, Gear Testing

Brown & Sharpe Mfg. Co., Providence.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
National Tool Co., The, Cleveland, Ohio.

Machines, Grinding

(See "Grinders")

Machines, Grooving

American Steel Scraper Co., The, Sidney, Ohio.
Boice-Crane Co., Toledo, Ohio.
Mall Tool Co., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Wappat, Inc., Pittsburgh, Pa.
Wodack Electric Tool Corp., Chicago, Ill.

Machines, Hack Saw

(See "Saws, Hack [Machine]")

Machines, Honing

Barnes Drill Co., Rockford, Ill. (Hydraulic)
Carborundum Co., The, Hutto Machine Division, Detroit, Mich.
Moline Tool Co., Moline, Ill.

Machines, Key Seating and Grooving

Baker Bros., Inc., Toledo, Ohio.
Burr, John T., & Son, Brooklyn, N. Y.
Chattanooga Machinery Co., Chattanooga, Tenn.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Mitts and Merrill, Saginaw, Mich.

Machines, Lapping

Barnes Drill Co., Rockford, Ill.
Carborundum Co., The, Hutto Machine Division, Detroit, Mich.
Ingersoll Milling Machine Co., Rockford, Ill.
Moline Tool Co., Moline, Ill.
Norton Co., Worcester, Mass.
Onsrud Machine Works, Inc., Chicago, Ill.

Machines, Leather Working

Curtin-Hebert Co., Inc., Gloversville, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.

Machines, Measuring, Lineal

Devlin, Thos., Mfg. Co., Philadelphia, Pa.
Durant Mfg. Co., Milwaukee, Wis.
Veeder-Root, Inc., Hartford, Conn.

Machines, Metal Slitting

Armstrong-Blum Mfg. Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Gundlach, T. J., Machine Co., Belleville, Ill.
National Machine Products Co., Racine, Wis.
Peck, Stow & Wilcox Co., Southington, Conn.
Quickwork Co., The, St. Marys, Ohio.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Milling

Ames, B. C., Co., Waltham, Mass.
Burke Machine Tool Co., The, Conneaut, O.
Brown & Sharpe Mfg. Co., Providence, R. I.
Burr, John T., & Son, Brooklyn, N. Y. (Keyseat)
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Knight, W. B., Machinery Co., St. Louis.
Pratt, Wm. E., Mfg. Co., Joliet, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass. (Vertical only)
Ryerson, Joseph T., & Son, Inc., Chicago.
Sundstrand Machine Tool Co., Rockford, Ill.
U. S. Tool Company, Inc., Ampere, N. J.
Van Norman Machine Tool Co., Springfield, Mass.

Machines, Mitering

Beach Mfg. Co., Montrose, Pa.
Boice-Crane Co., Toledo, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Machines, Mortising

Barnes, W. F. & John, Co., Rockford, Ill.
Beach Mfg. Co., Montrose, Pa.
Boice-Crane Co., Toledo, Ohio.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Colladay Machine Works, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Orum, S. R. M., Inc., Philadelphia, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa. (Lock)

Machines, Nibbling

Campbell, Andrew C., Division of American Chain Co., Inc., Bridgeport, Conn.
Mitts and Merrill, Saginaw, Mich.
National Machine Tool Co., Racine, Wis.

Machines, Nut Setting

(See "Setters, Nut")

Machines and Equipment, Painting and Whitewashing

Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Clements Mfg. Co., Chicago, Ill.
DeVilbiss Co., The, Toledo, Ohio.
Electric Sprayit Co., The, Milwaukee, Wis.
Gast Mfg. Co., The, Bridgman, Mich.
Kellogg Manufacturing Co., Rochester, N. Y.
Littleford Bros., Cincinnati, Ohio.
Metal Specialties Mfg. Co., Chicago, Illinois
Paasche Airbrush Co., Chicago, Ill.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Spray Engineering Co., Somerville, Mass.

Machines, Planing

(See "Planers")

Machines, Polishing and Buffing

(See "Machines, Buffing and Polishing, Stationary")

Machines, Pumping

(See "Pumps")

Every Effort Has Been Made

to Make

The Directory Edition

as Complete and Up-to-date as Possible

However, There May Be Instances Where You Do Not Find the Information You Are Seeking

In Such Cases, Write

MILL SUPPLIES

And We Will Do Everything We Can to Secure It for You

UMI

"Buffalo" Punches, Shears, Bar-Cutters

Buffalo hand operated punches, shears and bar-cutters are popular in sheet metal shops, light metal manufacturing plants, etc. Complete line, good profit margin, very little competition.

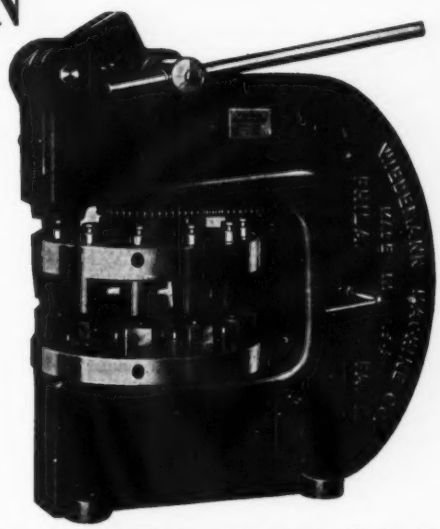
We also manufacture complete lines of power operated punches, shears and barcutters for heavy metal cutting, as well as bending rolls. Inquiries on this type of equipment referred to us will have prompt attention.

BUFFALO FORGE COMPANY
478 Broadway Buffalo, N. Y.

UNBREAKABLE
Armor Plate Frames

WIEDEMANN turret punch

for 24-in. wide sheets—with 12 sizes of punches always instantly available



The Wiedemann Turret Punches eliminate much costly die changing on short run work. The type R-2 allows any punch and die in the turrets to be brought in the operating position within ten (10) seconds. In addition, the press is so arranged that any punch and die within the standard range of the machine can be changed to another size within two (2) minutes.

Very accurate alignment is assured by our positive indexing device, which locks the turrets when the working punch and die are centered under the ram.

Punches and dies are inexpensive, and can be supplied with varying clearances for thick or very thin material. Tools for square, slotted, or shaped holes can be quickly furnished. Other punches are available for very accurate piercing in Copper, Aluminum, Duralumin and Stainless Steels, superior to anything previously offered. This punch is doing extremely fine and satisfactory work on punching Copper Buss Bars. Samples and additional information sent on request.

Wiedemann Machine Company
Also 18", 24", 28" Throat Hand or Power Operated Presses
1821 Sedgley Avenue PHILADELPHIA, PA.

Machines, Punching and Shearing

Armstrong-Blum Mfg. Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Gundlach, T. J., Machine Co., Belleville, Ill.
Kidder, J. F., Mfg. Co., Inc., Burlington, Vt.
Peck, Stow & Wilcox Co., Southington, Conn.
Pels, Henry, & Co., Inc., New York, N. Y.
Rock River Machine Co., Janesville, Wis.
Ross, David J., Co., Benton Harbor, Mich. (Bench punch press)
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Ryerson, Joseph T., & Son, Chicago ,Ill.
Watson-Stillman Co., The, Roselle, N. J.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.
Wiedemann Machine Co., Philadelphia, Pa.

Machines—Punching, Shearing and Rod Cutting, Combined

Armstrong-Blum Mfg. Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Covel-Hanchett Co., Big Rapids, Mich.
Gundlach, T. J., Machine Co., Belleville, Ill.
Pels, Henry, & Co., Inc., New York, N. Y.
Rock River Machine Co., Janesville, Wis.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Reaming

Barnes, W. F. & John, Co., Rockford, Ill.
Black & Decker Mfg. Co., The, Towson, Md.
Buckeye Portable Tool Co., The, Dayton, Ohio. (Pneumatic)
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Moline Tool Co., Moline, Ill.
Rockford Drilling Machine Div., Borg-Warner Corporation, Rockford.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Van Dorn Electric Tool Co., Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Wappat, Inc., Pittsburgh, Pa.

Machines, Riveting

(See "Riveters")

Machines, Rubbing, Flexible Shaft

Dallett Co., The, Philadelphia, Pa.
Flexible Shafts, Inc., Binghamton, N. Y.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Mall Tool Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Schauer Machine Co., The, Cincinnati, O.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Machines, Sanding and Polishing

American Foundry Equipment Co., Mishawaka, Ind.
Asch & Co., Inc., New York, N. Y.
Beach Mfg. Co., Montrose, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Boice-Crane Co., Toledo, Ohio.
Buckeye Portable Tool Co., The, Dayton, Ohio.
Carborundum Co., The, Niagara Falls, N.Y.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Curtis Machine Corp., Jamestown, N. Y.
Dallett Co., The, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Empire Machine Works, Mt. Morris, N. Y.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hermance Machine Co., Williamsport, Pa.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Master Woodworker Mfg. Co., Detroit.
Mattison Machine Works, Rockford, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Simplex Spray Equipment Co., Chicago, Ill.
Skilsaw, Inc., Chicago, Ill.
Sterling Products Co., Detroit, Mich.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Street Addresses or Post Office Box Numbers of Manufacturers whose products are listed in the Directory Edition will be found in the "Names and Addresses" Section

—EASY TO SELL—
Because Every Plant Using Saws NEEDS IT
FOLEY AUTOMATIC SAW FILER
Files all saws that can be filed with a three-cornered file
HAND..BAND..CIRCULAR
All saws can be filed better—quicker—sharper—by the Foley Automatic Saw Filer. In use for years by hundreds of industrial and woodworking plants, large and small. So accurate are they that such foremost saw manufacturers as Atkins, Disston and Simonds use them for finishing new saws and repairing old ones. Files saws to cut faster and truer because it files and joints every tooth to a greater uniformity than expert hand filing. Saves time and expense. No errors — no eye-strain. Circular saws never get out of round when filed on a Foley.

FREE TRIAL
To responsible firms we allow a 30-day free trial.
FOLEY MFG. CO.
46 Main St. N. E., Minneapolis, Minn.
Write for Details

Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa.

Machines—Saw Filing, Setting and Jointing

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Foley Manufacturing Co., Minneapolis, Minn.
Holcomb, A. L., Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines, Sawing, Radial

Beach Mfg. Co., Montrose, Pa.
Skilsaw, Inc., Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Machines, Screw, Hand

Brown & Sharpe Mfg. Co., Providence, R. I.

Machines, Screw Slotting

Independent Pneumatic Tool Co., Chicago.

Machines, Screwdriving

Black & Decker Mfg. Co., The, Towson, Md.
Buckeye Portable Tool Co., The, Dayton, Ohio. (Pneumatic)
Chicago Pneumatic Tool Co., New York.
Clark, James, Jr., Electric Co., Louisville.
Flexible Shafts, Inc., Binghamton, N. Y.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Independent Pneumatic Tool Co., Chicago.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Mall Tool Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Procunier Safety Chuck Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Stanley Electrical Tool Division, The Stanley Works, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Maufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Machines and Tools, Sheet Metal Working

(See various headings for specific items.)

Armstrong-Blum Mfg. Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Canton Foundry & Machine Co., The, Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Mall Tool Co., Chicago, Ill.
National Machine Tool Co., Racine, Wis.
Peck, Stow & Wilcox Co., Southington, Conn.
Quickwork Co., The, Chicago, Ill.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Schauer Machine Co., The, Cincinnati, O.
Swett, Frank W., & Son, Chicago, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.

Machines, Smoke Testing

Bernz, Otto, Co., Inc., Rochester, N. Y.

Machines, Spraying

(See "Sprayers" and "Guns, Paint Spraying")

Machines, Tapping

Armstrong-Blum Mfg. Co., Chicago, Ill.
Avey Drilling Machine Co., The, Cincinnati.
Baker Brothers, Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Barnes, W. F. & John, Co., Rockford, Ill.
Boice-Crane Co., Toledo, Ohio.

BOICE-CRANE
NEW HIGH SPEED DRILLING and TAPPING MACHINES
SENSITIVE
LOW IN PRICE
GUARANTEED SAVINGS

Above is the bench type ready for drilling. At right, set up for tapping.
A sure cure for high drilling and tapping costs. Costs only half or a third as much as machines they are fast replacing, and turning out more work in instance after instance. Perfect tapping at astonishingly high speeds. Less tap breakage—simpler setup on new tapping head with exclusive "tru-grip" tap holder. If your customers use one or a hundred drilling or tapping machines we can show them real savings.
Dealers—Write for Catalog—Prices
BOICE-CRANE CO.
Dept. MS 137 Toledo, O.

MARVEL TAPPERS

7 Models (sizes) Capacities Spindle Speeds
. . . a complete line of low priced, horizontal, friction type, tapping machines with a facility and adaptability that enables them to do the work of far more complex and expensive equipment. Handle everything from very fine thread No. 0 taps to ½" U. S. standard taps in steel—spindle speeds from 400 to 2800 RPM.

STANDARDIZED ATTACHMENTS FOR ALL MODELS
Available in inexpensive plain bench model, or with any or all of accessories as shown, including sliding table, hand levers, automatic depth trip, floor stand, foot treadle, oil pans, etc.
Can also be adapted for threading, for driving small studs, or for driving nuts in assembly operations.
Write for Bulletins
ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
330 N. Francisco Ave., Chicago, U.S.A.

Burke Machine Tool Co., The, Conneaut, O.
Ettco Tool Co., Brooklyn, N. Y.
Geometric Tool Co., The, New Haven, Conn.
Greenlee Bros. & Co., Rockford, Ill.
Haskins, R. G., Co., Chicago, Ill.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Mueller Co., Decatur, Ill.
Procunier Safety Chuck Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines, Tapping, Electric, Portable

Black & Decker Mfg. Co., Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., Cincinnati.
Ettco Tool Co., Brooklyn, N. Y.
Flexible Shafts, Inc., Binghamton, N. Y.
Hisey-Wolf Machine Co., Cincinnati, Ohio.
Independent Pneumatic Tool Co., Chicago.
Milwaukee Electric Tool Corp., Milwaukee.
Portable Power Tool Corp., Warsaw, Ind.
Schauer Machine Co., The, Cincinnati, O.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Machines and Steamers, Thawing, Pipe

American-La France and Foamite Corp., Elmira, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Hauck Manufacturing Co., Brooklyn, N. Y.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.
Van Dorn Electric Tool Co., The, Towson, Md.

Machines, Thread Milling

Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Machines, Threading, Bolt and Cap Screw

Curtis & Curtis Co., The, Bridgeport, Conn.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Oster Manufacturing Co., The, Cleveland.
Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Threading, Nipple

Curtis & Curtis Co., The, Bridgeport, Conn.
Geometric Tool Co., The, New Haven.
Greenfield Tap & Die Corp., Greenfield, Mass.
Oster Manufacturing Co., The, Cleveland.
Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Threading, Pipe

(See "Machines, Cutting and Threading, Pipe")

Machines, Threading, Rod

Beaver Pipe Tools, Inc., Warren, Ohio.
Geometric Tool Co., New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
National Acme Co., Cleveland, Ohio.
Oster Manufacturing Co., The, Cleveland.

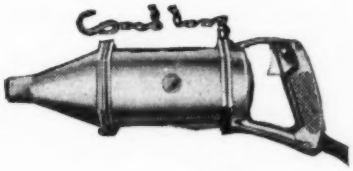
Machines, Woodworking

(See also headings for specific items)

Barnes, W. F. & John, Co., Rockford, Ill.
Beach Mfg. Co., Montrose, Pa.
Blount, J. G., Co., Everett, Mass. (Lathes)
Boice-Crane Co., Toledo, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Chattanooga Machinery Co., Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
Corley Manufacturing Co., Chattanooga, Tenn.
Dallett Co., The, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis.
Empire Machine Works, Mt. Morris, N. Y.

BLACK & DECKER

Portable Electric HEAT GUN



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Miller Rubber Co., The, Akron, Ohio.
New York Belting & Packing Co., Passaic, N. J.
Republic Rubber Co., The, Youngstown.
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Chicago Eye Shield Co., Chicago, Ill.

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Home Rubber Co., Trenton, N. J.
Lubron Co., The, Everett, Mass.
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New York Belting & Packing Co., Passaic, N. J.
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Republic Rubber Co., The, Youngstown, O.
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Mauls

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(See "Tapes, Measuring")

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Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
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Johnson Bronze Co., New Castle, Pa.
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Murphy, E. L., Chicago, Ill.
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(See "Barrels and Mills, Tumbling")

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(See "Machines, Mitering")

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(See "Gloves and Mittens")

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(See "Machines, Mortising")

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Marathon Electric Manufacturing Corp., Wausau, Wis.
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(See "Engines or Motors, Stationary")

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Ridge Tool Co., The, Elyria, Ohio.
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Williams, J. H., & Co., New York, N. Y.

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(See "Car Movers")

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Red Cross Mfg. Co., The, Bluffton, Ind.

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(See "Sets, Nail")

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Hubbard & Co., Pittsburgh, Pa. (Copper only)
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Reading Iron Co., Philadelphia, Pa.
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Bethlehem Steel Co., Bethlehem, Pa.
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Northwestern Barb Wire Co., Sterling, Ill.
Republic Steel Corp., Cleveland, Ohio.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

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Jones & Laughlin Steel Corp., Pittsburgh.
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Ryerson, Joseph T., & Son, Inc., Chicago.
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Atlas Tack Corp., Fairhaven, Mass.
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Jones & Laughlin Steel Corp., Pittsburgh.
Northwestern Barb Wire Co., Sterling, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Double Head

American Steel & Wire Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Star Expansion Bolt Co., New York, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Foundry

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Jones & Laughlin Steel Corp., Pittsburgh.
Northwestern Barb Wire Co., Sterling, Ill.
Reading Iron Co., Philadelphia, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails—Iron, Steel and Wire

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Steel and wire only)
Lyon, Conklin & Co., Inc., Baltimore, Md.
Markwell Manufacturing Co., Inc., New York, N. Y.
Northwestern Barb Wire Co., Sterling, Ill.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Masonry, Hardened

Hillwood Mfg. Co., The, Cleveland, Ohio.
Parker-Kalon Corp., New York, N. Y.

Nails, Roofing

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Eagle-Picher Lead Co., The, Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Malleable Iron Fittings Co., Branford, Conn.
Northwestern Barb Wire Co., Sterling, Ill.
Reading Iron Co., Philadelphia, Pa.
Republic Steel Corp., Cleveland, Ohio.
Ruberoid Co., The, New York, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Screw

Hillwood Mfg. Co., The, Cleveland, Ohio.
Parker-Kalon Corp., New York, N. Y. (Hardened)

Needles, Belt Lacing

Berbecker, Julius, & Sons, Inc., New York.
Schieren, Chas. A., Co., New York, N. Y.

Needles, Industrial, Hand Sewing

Berbecker, Julius, & Sons, Inc., New York.

Netting, Wire

American Steel & Wire Co., Chicago, Ill.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Northwestern Barb Wire Co., Sterling, Ill.
Roebling's, John A., Sons Co., Trenton.
Sheffield Steel Corp., Kansas City, Mo.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Nibbling Machines

(See "Machines, Nibbling")

Nippers

Hammel, Riglander & Co., Inc., New York.
Heller Brothers Co., Newark, N. J.
Peck, Stow & Wilcox Co., Southington, Conn.
Sandvik Saw & Tool Corp., Minneapolis.
Schollhorn, Wm., Co., The, New Haven, Conn.

Nipples, Hose

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allen & Billmyre Co., Inc., New York.
American Foundry & Mfg. Co., St. Louis.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of the B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Farnan Brass Works Co., The, Cleveland.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Grinnell Co., Inc., Providence, R. I.
Haydenville Co., The, Haydenville, Mass.
Home Rubber Co., Trenton, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kelly Machinery Co., Chicago, Ill.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Mueller Co., Decatur, Ill.
Mulconroy Company, Philadelphia, Pa.
New York Brass Foundry Co., New York.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Nipples, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Nipple Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Essex Brass Corp., Detroit, Mich.
Frick-Reid Supply Corp., N. S., Pittsburgh, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hunt, H. W., Co., Reading, Mass. (Brass and copper)
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Messmer Brass Co., St. Louis, Mo.
Midland Mfg. Co., Ft. Worth, Tex.
New York Brass Foundry Co., New York.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Shaw-Kendall Engineering Co., The, Toledo, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.
Williams, Franklin, Inc., Orange, N. J.

Nipples, Pipe, Extra Heavy

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Chicago Nipple Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Frick-Reid Supply Corp., N. S., Pittsburgh, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
Shaw-Kendall Engineering Co., The, Toledo, Ohio.
Walworth Co., New York, N. Y.

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Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.

Nipples, Pipe, Stainless Steel

Alloy Steel Products Co., Linden, N. J.

Nipples, Pipe, Steel and Wrought Iron

Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Byers, A. M., Co., Pittsburgh. (Wrought iron only)
Chicago Nipple Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Frick-Reid Supply Corp., N. S., Pittsburgh. Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Miller Machine Works, Springs, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio. (Steel only)
Reading Iron Co., Philadelphia. (Wrought iron only)
Shaw-Kendall Engineering Co., The Toledo, Ohio.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.

Nipples, Soldering

Acheson Manufacturing Co., Rankin, Pa. (Brass)
American Foundry & Mfg. Co., St. Louis.
Atlas Brass Foundry Co., Columbus, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Farnan Brass Works Co., The, Cleveland, Ohio.
Hays Manufacturing Co., Erie, Pa.
Midland Mfg. Co., Ft. Worth, Tex.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rickersburg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Nipples, Swaged

Clow, James B., & Sons, Chicago, Ill.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Moak Machine & Tool Co., Port Huron, Mich.

Nipples, Tank or Locknut

Acheson Manufacturing Co., Rankin, Pa.
Buffalo Nipple & Machine Co., Inc., Buffalo.
Chicago Nipple Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.

Nozzles, Air

Binks Manufacturing Co., Chicago, Ill.
Cleveland Rock Drill Co., The, Cleveland.
Essex Brass Corp., Detroit, Mich.
Graton & Knight Co., Worcester, Mass.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Molded Specialties Co., Cleveland, Ohio.
Schrader's, A., Son, Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Simplex Spray Equipment Co., Chicago, Ill.
United States Air Compressor Co., Cleveland, Ohio.

SHERMAN AIR NOZZLE

Fig. 111, Angle Pattern (Illustrated) —for general use; no bending of hose in operation; tip is removable.

Fig. 113, Straight Pattern — with hose nipple cast integral; easily suspended directly over a machine.

Fig. 114, Straight Pattern — removable tip and lever handle which fits the hand. ¼ in. and ⅜ in. I. P. Thread

Maximum Utility—Air Economy—Operating Convenience at Reasonable Price.

SOLD BY JOBBERS Fig. 111

H. B. SHERMAN MFG. CO.
BATTLE CREEK, MICH.

Nozzles, Boiler

Bate Boiler Efficiency Co., Conshohocken, Pa.
Farquhar, A. B., Co., Ltd., York, Pa.
Milwaukee Steam Appliance Co., West Allis, Wis.
Ryerson, Joseph T., & Son, Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.

Nozzles, Hose

Acheson Manufacturing Co., Rankin, Pa. (Garden hose)
Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Atlas Brass Foundry, Los Angeles, Calif.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Campbell-Hausfeld Co., The, Harrison, O.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Haydenville Co., The, Haydenville, Mass.
Home Rubber Co., Trenton, N. J.
Independent Pneumatic Tool Co., Chicago.
Knox Mfg. Co., Philadelphia, Pa.
M & H Valve & Fittings Co., Anniston, Ala.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa. (Gasoline self-closing)
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Messmer Brass Co., St. Louis, Mo.
Molded Specialties Co., Cleveland, Ohio.
Morrison Bros., Dubuque, Iowa.
Mulconroy Company, Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Belting & Packing Co., Passaic, N. J.
New York Brass Foundry Co., New York.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Safety Fire Extinguisher Co., New York.
Sherman, H. B., Mfg. Co., Battle Creek.
Thermoid Rubber Co., Trenton, N. J.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

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For blowing away chips, dirt, moisture, etc.

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Nozzles, Hose, Controlling

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Boston Woven Hose & Rubber Co., Cambridge, Mass.
Crane Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Molded Specialties Co., Cleveland, Ohio.
Morrison Bros., Dubuque, Iowa.
New York Brass Foundry Co., New York.
Republic Rubber Co., The, Youngstown, O.
Safety Fire Extinguisher Co., The, New York, N. Y.

Nozzles, Hydrant

American Foundry & Mfg. Co., St. Louis.
Clow, James B., Sons, Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Haydenville Co., The, Haydenville, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
M & H Valve & Fittings Co., Anniston, Ala.
New York Brass Foundry Co., New York.

Nozzles, Hydraulic Mining

Taylor Forge & Pipe Works, Chicago, Ill.

Nozzles, and Sprinklers, Irrigation

American Foundry & Mfg. Co., St. Louis.
Buffalo Forge Co., Buffalo, N. Y.
Consolidated Brass Co., Detroit, Mich.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Spray Engineering Co., Somerville, Mass.

Nozzles, Rubber

Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., The, Akron, O.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Whitehead Bros. Rubber Co., Trenton, N. J.

Nozzles, Sand Blast

American Foundry Equipment Co., Mishawaka, Ind.
Dallett Co., The, Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Marion Malleable Iron Works, Marion, Ind.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Ruemelin Mfg. Co., Milwaukee, Wis.

Nozzles, Spray

Aeroil Burner Co., Inc., West New York, N. J.
Allen, W. D., Mfg. Co., Chicago, Ill.
Anderson Bros. Mfg. Co., Rockford, Ill.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Chain Belt Co., Milwaukee, Wis.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Messmer Brass Co., St. Louis, Mo.
Metal Specialties Mfg. Co., Chicago, Ill.
Molded Specialties Co., Cleveland, Ohio.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Belting & Packing Co., Passaic, N. J.
Paasche Airbrush Co., Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Simplex Spray Equipment Co., Chicago, Ill.
Spray Engineering Co., Somerville, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Nozzles, Turret

Elkhart Brass Mfg. Co., Elkhart, Ind.

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Nut and Screw Blanks
(See "Blanks, Nut and Screw")

Nut Setters
(See "Setters, Nut")

Nuts, Acorn

Chicago Screw Co., The, Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
Rockford Screw Products Co., Rockford, Ill.
United Screw & Bolt Corp., Cleveland, O.
Walworth Co., New York, N. Y.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
American Screw Co., Providence, R. I.
Ampco Metal, Inc., Milwaukee, Wis.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., The, Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw & Bolt Corp.), Cleveland, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Harper, H. M., Co., Chicago, Ill.
Harris, Arthur, & Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Messmer Brass Co., St. Louis, Mo.
National Screw & Mfg. Co., The, Cleveland.
New England Screw Co., Boston, Mass.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
United Screw & Bolt Corp., Cleveland, O.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Cap

American Screw Co., Providence, R. I.
Chicago Screw Co., Chicago, Ill.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Keystone Mfg. Co., Buffalo, N. Y.
Lamson & Sessions Co., The, Cleveland.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Mid-West Screw Products Co., St. Louis.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Rockford Screw Products Co., Rockford, Ill.
United Screw & Bolt Corp., Cleveland, O.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Case Hardened

Acme Machine Products Co., Muncie, Ind.
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.

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Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Standard Shop Equipment Co., Philadelphia, Pa.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Castellated or Slotted

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blatchford Corp., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Stevens, Walden, Inc., Worcester, Mass.
United Screw & Bolt Corp., Cleveland, O.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Check or Jam

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.

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Columbus Bolt Works Co., The, Columbus, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Milton Manufacturing Co., The, Milton, Pa.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
United Screw & Bolt Corp., Cleveland, O.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Cold Punched

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Elco Tool & Screw Co., Rockford, Ill.
Federal Screw Works, Detroit, Mich.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
New England Screw Co., Boston, Mass.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wasmer Bolt & Nut Co., The, Cleveland.

Nuts, Finished and Semi-Finished

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Automatic Nut Co., Lebanon, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Mid-West Screw Products Co., St. Louis.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Standard Shop Equipment Co., Philadelphia, Pa.

Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich. (Semi-finished only)
United Screw & Bolt Corp., Cleveland, O.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Hot Pressed

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Federal Screw Works, Detroit, Mich.
Heiz & Heiz, Inc., Brooklyn, N. Y.
International Nickel Co., Inc., The, New York, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Nuts, Lock

(See "Locknuts")

Nuts, Thumb and Wing

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland, O.
Billings & Spencer Co., The, Hartford, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Columbus Bolt Works Co., The, Columbus, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill. (Brass)
International Nickel Co., Inc., The, New York, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
United Screw & Bolt Corp., Cleveland, O.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.

Nuts, Waste

Acheson Manufacturing Co., Rankin, Pa.
Detroit Brass & Malleable Works, Detroit.
National Screw & Mfg. Co., The, Cleveland.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Oakum

American Manufacturing Co., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Hooven & Allison Co., The, Xenia, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Rauschenberger, John, Co., Milwaukee.
Rochester Ropes, Inc., Jamaica, N. Y.
Upson-Walton Co., The, Cleveland, Ohio.
Wall Rope Works, Inc., New York, N. Y.

Oil, Core

(See "Compounds and Oils, Core")

Oil — Cutting, Drilling, Threading, Etc.

(See "Compounds and Oils")

Oil Eliminators

Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Oil Extractors

(See "Extractors, Grease and Oil")

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National Lead Co., New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
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Whitlam, J. C., Mfg. Co., Wadsworth, O.

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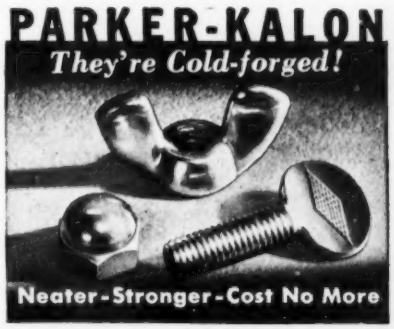
Baum's Castorine Co., Rome, N. Y.
Bay State Stamping Co., Worcester, Mass.
Boyle, A. S., Co., The, Cincinnati, Ohio.
Chicago Pneumatic Tool Co., New York.
Cook's, Adam, Sons, Inc., Linden, N. J.
Curry Brothers Oil Co., Boston, Mass.

(Continued on page 234)



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Oil and Grease, Lubricating

(Continued from page 233)

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Eiermann Floor Scraper Co., Brooklyn.
Fiske Brothers Refining Co., New York, N. Y.
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Harris, A. W., Oil Co., Providence, R. I.
Keystone Lubricating Co., Philadelphia.
Master Lubricants Co., Philadelphia, Pa.
Magie Bros., Chicago, Ill.
N. A. C. Corporation, The, Camden, N. J.
Patterson Lubricating Co., Boston, Mass.
Philadelphia Grease Mfg. Co., The, Philadelphia, Pa.
Royersford Foundry & Machine Co., Royersford, Pa.
Standard Oil Co., of New York, The, New York, N. Y.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
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White & Bagley Co., The, Worcester, Mass.

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Harris, A. W., Oil Co., Providence, R. I.
Stuart, D. A., Oil Co., Chicago, Ill.

Oil, Penetrating

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American Oil & Grease Corp., Chicago, Ill.
Baum's Castorine Co., Rome, N. Y.
Boyle, A. S., Co., The, Cincinnati, Ohio.
Case, J. R., Manufacturing Co., Jonesboro, Ark.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City.
Franklin Oil & Gas Co., The, Bedford, O.
Ideal Commutator Dresser Co., Sycamore, Ill.
Keystone Lubricating Co., Philadelphia.
Master Lubricants Co., Philadelphia, Pa.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Standard Oil Co. of New York, The, New York, N. Y.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Stuart, D. A., Oil Co., Chicago, Ill.
Superior Flake Graphite Co., Chicago, Ill.
White & Bagley Co., The, Worcester, Mass.
Wilbur & Williams Co., Boston.

Oil and Gas Well Supplies, Rubber

Cincinnati Rubber Mfg. Co., Cincinnati.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Garlock Packing Co., The, Palmyra, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Jackson, Byron, Co., Los Angeles, Calif.
Manhattan Rubber Mfg. Division, The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Thermoid Rubber Co., Trenton, N. J.

Oil Seals

(See "Seals, Oil")

Oil Stones

(See "Stones, Oil")

Oil Testing Instruments

(See "Instruments, Testing, Oil")

Oiler Sets

(See "Sets, Oiler")

Oilers

(See also "Cups", "Lubricators" and "Pumps")

Oilers, Bottle

Essex Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati.

Oilers, Crank Pin and Cross Head

American Injector Co., Detroit, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.

Oilers, Hand, Pump Type

American Injector Co., Detroit, Mich.
Anthes Force Oiler Co., Fort Madison, Ia.
Cannon Oiler Co., Keithsburg, Ill.
Eagle Manufacturing Co., Wellsburg, W. Va.
Essex Brass Corp., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lidseen, Gustave, Inc., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Plews Oiler Co., Minneapolis, Minn.

Oilers, Hand, Spring Bottom

Atlas-Ansonia Co., New Haven, Conn.
Bay State Stamping Co., Worcester, Mass.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Eagle Manufacturing Co., Wellsburg, W. Va.
Gem Manufacturing Co., Pittsburgh, Pa.
Lidseen, Gustave, Inc., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
Perkins Marine Lamp & Hardware Corp., Brooklyn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Manufacturing Co., Oakmont, Pa.

Oilers, Railroad

Alemite Corp., Chicago, Ill.
Anthes Force Oiler Co., Fort Madison, Ia.
Bay State Stamping Co., Worcester, Mass.
Cannon Oiler Co., Keithsburg, Ill.
Eagle Manufacturing Co., Wellsburg, W. Va.
Gem Manufacturing Co., Pittsburgh, Pa.
Gits Bros. Mfg. Co., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Lidseen, Gustave, Inc., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.
Walters Manufacturing Co., Oakmont, Pa.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Oilers, Sight Feed, Multiple

Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hallanger Industrial Oiler Div. of Davis Tool & Engineering Co., Detroit, Mich.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator Mfg. Co., Detroit, Mich.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Victor Lubricator Co., Chicago, Ill.

Openers, Box or Crate

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Sargent & Co., New Haven, Conn.

Openers, Door

(See "Door Openers and Closers")

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Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Ammonia

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Belmont Packing & Rubber Co., Philadelphia, Pa.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Carbondale Machine Corp., Harrison, N. J.
Chesterton, A. W., Co., Boston, Mass.
Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
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Crane Packing Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
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Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Endura Mfg. Co., Quakertown, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Federal Metallic Packing Co., Wakefield, Mass.
Felt Products Mfg. Co., Chicago, Ill.
France Packing Co., Tacony, Philadelphia.
Garlock Packing Co., Palmyra, N. Y.
General Asbestos & Rubber Div. of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodsell Packing Co., Algonquin, Ill.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
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Huhn Manufacturing Co., Bronx, N. Y.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Johns-Manville, New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Philadelphia.
Republic Rubber Co., The, Youngstown, O.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Asbestos—Rope, Twist and Wick

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Advance Packing & Supply Co., Chicago.
Asbestos Mfg. Co., Huntington, Ind.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Carey, Philip, Co., The, Lockland, Ohio.

(Continued on page 236)

Ovens, Core, Enameling and Japanning

Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis.
Palmer-Bee Co., Detroit, Mich.
Roberts Portable Oven Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.

Ovens, Electric, for Industrial Uses

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Diamond Iron Works, Inc., Minneapolis.
General Electric Co., Schenectady, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Trent, Harold E., Co., Philadelphia, Pa.

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(Continued from page 235)

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Crane Co., Chicago, Ill.
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Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
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Goodall Rubber Co., Philadelphia, Pa.
Goodsell Packing Co., Algonquin, Ill.
Goodyear Tire & Rubber Co., Inc., Akron, O.
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Hewitt Rubber Corp., Buffalo, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Johns-Manville, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
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Republic Rubber Co., The, Youngstown, O.
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Rhopac Products Corp., Chicago, Ill.
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Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodsell Packing Co., Algonquin, Ill.
Goodyear Tire & Rubber Co., Inc., Akron.
Hewitt Rubber Corp., Buffalo, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
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Jenkins Bros., New York, N. Y.
Johns-Manville, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Klingerit, Inc., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Miley, L. J., Co., Inc., Chicago, Ill.
New York Belting & Packing Co., Passaic.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos, Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Cork

Advance Packing & Supply Co., Chicago.
Armstrong Cork Products Co., Lancaster, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Rhopac Products Corp., Chicago, Ill.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.

Packing, Cotton Wicking

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Darcoid Co., Inc., The, New York, N. Y.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
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Rauschenberger, John, Co., Milwaukee.
Rhopac Products Corp., Chicago, Ill.
Walters Manufacturing Co., Oakmont, Pa.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Diaphragm

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Endura Mfg. Corp., Quakertown, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Vellumoid Co., The, Worcester, Mass.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Packing, Duck, Hydraulic—for Elevators, Pumps, Etc.

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Durabla Manufacturing Co., New York.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Endura Mfg. Corp., Quakertown, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.

UMI

General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodsell Packing Co., Algonquin, Ill.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Western Packing & Supply Co., Chicago.

Packing, Felt

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Booth Felt Co., Inc., Brooklyn, N. Y.
Chesterton, A. W., Co., Boston, Mass.
Darcoid Co., Inc., The, New York, N. Y.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.

Packing, Fibre and Fibrous

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Durabla Manufacturing Co., New York.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Endura Mfg. Corp., Quakertown, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Goodsell Packing Co., Algonquin, Ill.
Greene, Tweed & Co., New York, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Johns-Manville, New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Minnesota Mining & Mfg. Co., St. Paul.
New York Belting & Packing Co., Passaic, N. J.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Western Packing & Supply Co., Chicago.

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Packing, Flax

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Goodsell Packing Co., Algonquin, Ill.
Greene, Tweed & Co., New York, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Johns-Manville, New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rauschenberger, John, Co., Milwaukee.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Union Fibre Sales Co., Winona, Minn.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N.Y.
Western Packing & Supply Co., Chicago.

Packing, Hemp

Advance Packing & Supply Co., Chicago.
American Manufacturing Co., Brooklyn, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka Packing Co., and Braiding & Packing Works of America, Inc., Brooklyn.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Fitler, Edwin H., Co., The, Philadelphia.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodsell Packing Co., Algonquin, Ill.
Greene, Tweed & Co., New York, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Hooven & Allison Co., The, Xenia, Ohio.
Janos Asbestos Co., New York, N. Y.
Johns-Manville, New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Plymouth Cordage Co., North Plymouth, Mass.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rauschenberger, John, Co., Milwaukee.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Western Packing & Supply Co., Chicago.

Packing, Hydraulic

Advance Packing & Supply Co., Chicago.
Alexander Brothers, Inc., Philadelphia, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Detroit Oak Belting Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Endura Mfg. Corp., Quakertown, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Federal Metallic Packing Co., Wakefield, Mass.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
France Packing Co., The, Tacony, Philadelphia, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodsell Packing Co., Algonquin, Ill.
Graton & Knight Co., Worcester, Mass.
Greene, Tweed & Co., New York, N. Y.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Huhn Manufacturing Co., Bronx, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lourie Manufacturing Co., Chicago, Ill.
Lubron Co., The, Everett, Mass.
Mabbs Hydraulic Packing Co., Chicago.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Philadelphia Belting Co., Philadelphia.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.
Watt's John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Packing, Jute

Advance Packing & Supply Co., Chicago.
American Manufacturing Co., Brooklyn, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
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Janos Asbestos Co., New York, N. Y.
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Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rauschenberger, John, Co., Milwaukee.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wall Rope Works, Inc., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Packing & Supply Co., Chicago.

Packing, Leather

Advance Packing & Supply Co., Chicago.
Alexander Brothers, Inc., Philadelphia, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Degen-Fiege Belting Co., Los Angeles, Calif.
Detroit Oak Belting Co., Detroit, Mich.
Dudgeon, Richard, Inc., New York, N. Y.
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Mabbs Hydraulic Packing Co., Chicago, Ill.
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Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Victor Manufacturing & Gasket Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.
Watt's, John M., Sons, Philadelphia, Pa.
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Crandall Packing Co., Palmyra, N. Y.
Crane Packing Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Durabla Manufacturing Co., New York.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Federal Metallic Packing Co., Wakefield, Mass.
Felt Products Mfg. Co., Chicago, Ill.
France Packing Co., The, Tacony, Philadelphia, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
Globe Kneadable Metallic Packing Co., Brooklyn, N. Y. (Semi-metallic)
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodsell Packing Co., Algonquin, Ill.
Grancell, I. H., Los Angeles, Calif.
Graton & Knight Co., Worcester, Mass.
Hennebohle, Frank, Chicago, Ill.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Huhn Manufacturing Co., Bronx, N. Y.
Janos Asbestos Co., New York, N. Y.
Johns-Manville, New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
Miley, L. J., Co., Inc., Chicago, Ill.
Milwaukee Steam Appliance Co., West Allis, Wis.
Northern Metallic Packing Co., St. Paul.
Quaker City Rubber Co., Philadelphia.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Oil Proof

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Buffalo Weaving & Belting Co., Buffalo.
Chesterton, A. W., Co., Boston, Mass.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Crane Packing Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Endura Mfg. Corp., Quakertown, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Federal Metallic Packing Co., Wakefield, Mass.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodsell Packing Co., Algonquin, Ill.
Greene, Tweed & Co., New York, N. Y.
Gross Rubber Co., Sharon, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Huhn Manufacturing Co., Bronx, N. Y.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Minnesota Mining & Mfg. Co., St. Paul.
New York Belting & Packing Co., Passaic.
Philadelphia Belting Co., Philadelphia, Pa.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Packing, Piston — Diagonal, Gum Core, Ring, Round, Spiral, Sectional Square and Wedge

Advance Packing & Supply Co., Chicago.
Asbestos Mfg. Co., Huntington, Ind.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Chicago Rawhide Mfg. Co., The, Chicago.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Cook, C. Lee, Manufacturing Co., Inc., Louisville, Ky. (Metallic)
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.

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QUALITY is the keynote of all Belmont Packings. They are made to meet industry's packing problems and there is a Belmont Packing for Every Service.

THE BELMONT PACKING & RUBBER CO.
BUTLER AND SERVIVA STS. DEPARTMENT I
PHILADELPHIA, PA. U.S.A.

UMI

SHEET
PACKING

See Pages 33-36

Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Federal Metallic Packing Co., Wakefield, Mass.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodsell Packing Co., Algonquin, Ill.
Greene, Tweed & Co., New York, N. Y.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Johns-Manville, New York, N. Y.
Klingerit, Inc., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Plumbago

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Greene, Tweed & Co., New York, N. Y.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.

Packing, Pump

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Coleman, Allan J., Chicago, Ill.
Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Crandall Packing Co., Palmyra, N. Y.
Crane Packing Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Durabla Manufacturing Co., New York.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Endura Mfg. Corp., Quakertown, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Federal Metallic Packing Co., Wakefield, Mass.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
France Packing Co., The, Tacony, Philadelphia, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Globe Kneadable Metallic Packing Co., Brooklyn, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J..
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodsell Packing Co., Algonquin, Ill.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Janos Asbestos Co., New York, N. Y.
Johns-Manville, New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Mabbs Hydraulic Packing Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Mechanical Rubber Co., The, Passaic, N. J.
Michigan Leather Packing Co., Detroit.
Morris Metallic Packing Co., Philadelphia.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Rawhide

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Goodsell Packing Co., Algonquin, Ill.
Graton & Knight Co., Worcester, Mass.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.

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Sheet and Rod Packings of every description for high and low pressure. Cut Gaskets and Rings, Moulded Bumpers and mechanical specialties. Valves and Valve Discs.

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Moloney Belting Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Watt's, John M., Sons, Philadelphia, Pa.
Western Rawhide & Belting Co., Milwaukee, Wis.

Packing, Rubber

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Weaving & Belting Co., Buffalo.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crandall Packing Co., Palmyra, N. Y.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.

BELMONT PACKINGS

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UMI

Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Co., Chicago.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodsell Packing Co., Algonquin, Ill.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Packing, Rubber, Cloth Insertion

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Weaving & Belting Co., Buffalo.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Curry Brothers Oil Co., Boston, Mass.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodsell Packing Co., Algonquin, Ill.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Gross Rubber Co., Sharon, Pa.
Hamilton Rubber Mfg. Co., Trenton, N. J
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.

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Red Sheet
plain or with wire or cloth insertion
Black Oil-Resisting
plain or with wire or cloth insertion
Cloth and Rubber Sheet
Diaphragm Sheet
Vegetable Fibre Sheet
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FOR ANY SERVICE
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Flangetite—Hot Oil.
Edge No. 500—General Service.
Kidskin—Oil and Water.
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Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Salisbury, W. H., & Co., Inc., Chicago.
Thermoid Rubber Co., Trenton, N. J.
Victor Manufacturing & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Packing, Sheet

(See Classifications by Material)

Packing, Semi-Metallic

(See "Packing, Metallic")

Packing, Superheat

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crandall Packing Co., Palmyra, N. Y.
Crane Packing Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Durabla Manufacturing Co., New York.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Federal Metallic Packing Co., Wakefield, Mass.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
France Packing Co., The, Tacony, Philadelphia, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodsell Packing Co., Algonquin, Ill.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Greene, Tweed & Co., New York, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Johns-Manville, New York, N. Y.
Klingerit, Inc., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Standard Asbestos Mfg. Co., of Chicago, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Valve Stem

Advance Packing & Supply Co., Chicago.
Allpax Co., Inc., The, Mamaroneck, N. Y.
American Radiator Co., New York, N. Y.
Asbestos Mfg. Co., Huntington, Ind.
Bastian-Blessing Co., Chicago, Ill.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Crandall Packing Co., Palmyra, N. Y.
Crane Co., Chicago, Ill.
Crane Packing Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Federal Metallic Packing Co., Wakefield, Mass.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Field, R. B., & Co., Worcester, Mass.
France Packing Co., The, Tacony, Philadelphia, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodsell Packing Co., Algonquin, Ill.
Grancell, I. H., Los Angeles, Calif.
Graton & Knight Co., Worcester, Mass.
Greene, Tweed & Co., New York, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mabbs Hydraulic Packing Co., Chicago.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Mechanical Rubber Co., The, Passaic, N. J.
Morris Metallic Packing Co., Philadelphia.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Standard Asbestos Mfg. Co., of Chicago, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Wedge and Wick

(See Classifications by Material)

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THE BELMONT PACKING & RUBBER CO.
BUTLER AND SEPVIVA STS. DEPARTMENT 1
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PERMITE ALUMINUM PAINT MEETS EVERY PAINTING NEED

—and it's READY-MIXED

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PERMITE Ready Mixed Aluminum Paint is also available in many special types to meet the needs of unusual applications. Supplied in all sizes from quarts to 50 gal. drums. Full support and protection given to Permite distributors. Write for details, now.

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Master Lock Co., Milwaukee, Wis.
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Yale & Towne Mfg. Co., The, Stamford, Conn.

Pads, Lubricating, Felt

Booth Felt Co., Inc., Brooklyn, N. Y.
Breeze Corporation, Inc., Newark, N. J.
Gross Rubber Co., Sharon, Pa.

Pails, Cement

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Geuder, Paeschke & Frey Co., Milwaukee.
Philadelphia Belting Co., Philadelphia.
Rochester Can Co., Rochester, N. Y.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Fibre

Continental-Diamond Fibre Co., Newark, Del.
Cordley & Hayes, New York, N. Y.
Geuder, Paeschke & Frey Co., Milwaukee.

Pails, Fire

American-LaFrance and Foamite Corp., Elmira, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Rochester Can Co., Rochester, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Tar, Roofers'

Aeroil Burner Co., Inc., West New York, N. J.
Littleford Bros., Cincinnati, Ohio.
Rochester Can Co., Rochester, N. Y.
Witt Cornice Co., The, Cincinnati, Ohio.

Pails, Washing, Steel

Cleveland Wire Spring Co., The, Cleveland, Ohio.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Rochester Can Co., Rochester, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Water

Dover Stamping & Mfg. Co., Cambridge, Mass.
Geuder, Paeschke & Frey Co., Milwaukee.
Rochester Can Co., Rochester, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Wood

Leard, William, Co., Inc., The, New Brighton, Pa.

Paint, Aluminum

Aluminum Company of America, Pittsburgh, Pa.
Aluminum Industries, Inc., Cincinnati, O.
American Asphalt Paint Co., Chicago, Ill.
Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City.
DuPont DeNemours, E. I., & Co., Wilmington, Del. (Finishes Division)
Kellogg Products Co., New York, N. Y.
Koppers Products Company, Pittsburgh, Pa.
Quigley Co., Inc., New York, N. Y.
Sherwin-Williams Co., The, Cleveland, O.
Vita-Var Corp., Newark, N. J.
Vortex Manufacturing Co., The, Cleveland.
Wilbur & Williams Co., The, Boston, Mass.

Paint, Casein

Craftex Co., New York, N. Y.
General Chemical Co., Chicago, Ill.
Muralio Corp., Staten Island, N. Y.
Wilbur & Williams Co., The, Boston, Mass.

Paint, Graphite and Roofing

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
American Asphalt Paint Co., Chicago, Ill.

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Silica-flake-graphite paints famous for great durability and waterproofness. Used for maintenance of plant and equipment, bridges, gas holders, water tanks, wood and metal surfaces. Made in 14 colors.

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Their durable spar varnish vehicle resists the elements, insures long life and brilliance of the pigment. Made in three shades—Bright, a straight aluminum pigment—and two shades of Medium and Dark with a pigment of aluminum and flake graphite.

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Made for rough "heavy duty" service. Produce a solid covering, one coat enamel of great toughness and smoothness. Made in ten colors.

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Made in four service colors. Preservation of surface is the primary purpose.

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For concrete, wood and composition surfaces. Water and alkali proof. Made in eight colors.

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A complete range of varnishes for maintenance in plants, office buildings, institutions, etc.

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Show Plant Managers this Chart

for New Profitable Sales

when you want to paint	BONDLITE	TOTALBRITE	TOTALUME	CAUSTICBOND
• over calcimine and whitewash	✓			
• over water stains	✓			
• over rough concrete or brick		✓		
• over outside masonry		✓		
• to prevent rust			✓	
• to avoid paint fumes	✓	✓	✓	
• to cut paint costs in half	✓	✓		
• to protect metals under water				✓
• to hide in one coat	✓	✓	✓	

Plant managers will jump at these paints. For Bondlite, Totalbrite, Tetrust and Causticbond not only meet specialty needs but in addition will meet about 90% of your customers' industrial requirements. They are easy to apply—cut costs in half—and stand up under the toughest conditions.

With these four paints you can get a good profitable slice of the industrial paint business without running up your stock. They have a very low inventory and a quick turnover.

Send for full information on these unusual industrial specialty paints.

Bondlite

An oil base, self-sealing and self-sizing paint in paste form. Paints over solid calcimine without cleaning or washing down. Mixes flat, gloss or semi-gloss.

Totalbrite

A casein paint. Goes over damp or dry interior surfaces or outside masonry without trouble. Dries in 30 minutes. No odor. Comes in white and 8 colors.

Totalume

A rust preventive aluminum paint. Goes right over rusted surfaces—seals the pits and stops further rusting. No sandblasting necessary. Also comes clear or gloss black (Totrust).

Causticbond

protects surfaces from severe caustic conditions — Acidbond from acid conditions. They prevent corrosion of metal under water. Non-injurious to drinking water. Come in black and white.

THE WILBUR & WILLIAMS CO., Park Square Bldg. BOSTON

Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Carey, Philip, Co., The, Lockland, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
DuPont DeNemours, E. I., & Co., Wilmington, Del. (Finishes Division).
Horn, A. C., Co., Long Island City, N. Y.
Kellogg Products Co., New York, N. Y.
Koppers Products Company, Pittsburgh, Pa.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Rinald, H., Co., W. Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.
Rust-Pruf Co., The, Chicago, Ill.
Sherwin-Williams Co., Cleveland, Ohio.
Superior Flake Graphite Co., Chicago, Ill.
Tnemec Inc., Kansas City, Mo.
United States Graphite Co., The, Saginaw, Mich.
U. S. Gutta Percha Paint Co., Providence, R. I.
Vita-Var Corp., Newark, N. J.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wills Products Co., The, New York, N. Y.

Paint, Hot Surface

Aluminum Industries, Inc., Cincinnati, O.
American Asphalt Paint Co., Chicago, Ill.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ensign Products Co., Cleveland, Ohio.
General Electric Co., (Merchandise Dept.) Bridgeport, Conn.
Green, A. P., Fire Brick Co., Mexico, Mo.
Helmer & Staley, Chicago, Ill.
Horn, A. C., Co., Long Island City, N. Y.
Kellogg Products Co., New York, N. Y.
Koppers Products Company, Pittsburgh, Pa.
National Copper Paint Corp., Chicago, Ill.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Quigley Co., Inc., New York, N. Y.
Rust-Pruf Co., The, Chicago, Ill.
Sherwin-Williams Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence, R. I.
Wills Products Co., The, New York, N. Y.

Paint for Iron Work, Boilers, Boiler Settings, Machinery, Etc.

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Aluminum Industries, Inc., Cincinnati, O.
American Asphalt Paint Co., Chicago, Ill.
Baker Paint & Varnish Co., Jersey City, N. J.
Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Carter Paint Company, Liberty, Indiana.
Chadwick & Trefethen, Portsmouth, N. H.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
DuPont DeNemours, E. I., & Co., Wilmington, Del. (Finishes Division)
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Glover, Manson, Stoughton, Mass.
Helmer & Staley, Chicago, Ill.
Horn, A. C., Co., Long Island City, N. Y.
Kellogg Products Co., New York, N. Y.
Koppers Products Co., Pittsburgh.
National Lead Co., New York, N. Y.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Quigley Co., Inc., New York, N. Y.
Rinald, H., Co., W. Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.
Rust-Pruf Co., The, Chicago, Ill.
Sherwin-Williams Co., Cleveland, Ohio.
Steelcote Mfg. Co., St. Louis, Mo.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
United States Graphite Co., The, Saginaw, Mich.
U. S. Gutta Percha Paint Co., Providence.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wilbur & Williams Co., The, Boston.
Wills Products Co., The, New York, N. Y.

Paint, Mill White, Factory Interior

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
American Asphalt Paint Co., Chicago, Ill.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Carter Paint Company, Liberty, Indiana.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Detroit Graphite Co., Detroit, Mich.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Goheen Corp. of New Jersey, Newark, N. J.
Goodrich, B. F., Co., The, Akron, Ohio.
Horn, A. C., Co., Long Island City, N. Y.
Medusa Portland Cement Co., Cleveland, O.
National Copper Paint Corp., Chicago, Ill.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Quigley Co., Inc., New York, N. Y.
Reardon Co., The, St. Louis, Mo.
Rinald, H., Co., W. Philadelphia, Pa.
Rust-Pruf Co., The, Chicago, Ill.
Sherwin-Williams Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence, R. I.
Vortex Manufacturing Co., The, Cleveland.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wilbur & Williams Co., The, Boston, Mass.
Wills Products Co., The, New York.

Paint Spraying Guns

(See "Guns, Paint Spraying")

Paint Sticks for Marking

Helmer & Staley, Chicago, Ill.

Paint, Waterproofing

(See "Compounds and Paints, Waterproofing")

Painting Machines and Equipment

(See "Machines and Equipment, Painting and Whitewashing")

Pans, Acid and Annealing

Bethlehem Steel Co., Bethlehem, Pa.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Cleveland Wire Spring Co., The, Cleveland.
Littleford Bros., Cincinnati, Ohio.
Northwest Lead Co., Seattle, Wash. (Acid only)

Pans, Drip

Angle Steel Stool Co., Plainwell, Mich.
Burt Manufacturing Co., The, Akron, O.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Filer & Stowell Co., The, Milwaukee, Wis.
Littleford Bros., Cincinnati, Ohio.
Rochester Can Co., Rochester, N. Y.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Pans, Dust, Factory

Angle Steel Stool Co., Plainwell, Mich.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Rochester Can Co., Rochester, N. Y.

Pans, Lathe

Angle Steel Stool Co., Plainwell, Mich.
Cleveland Wire Spring Co., The, Cleveland.
Littleford Bros., Cincinnati, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pollard Bros. Mfg. Co., Chicago, Ill.
Walters Manufacturing Co., Oakmont, Pa.

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ASE CONSERVES FLOOR SPACE

A-S-E Taper Pans—are widely used for the storage and handling of small parts and for receiving small parts from machines. They nest perfectly when empty and occupy a minimum of floor space. Made of one piece of steel with corners lapped around the sides. Ends form convenient handles with hook hole in center. Available in special or in four standard sizes. Write for details.

ALL-STEEL-EQUIP CO.
INCORPORATED
607 John Street • Aurora, Ill.

Pans, Shop and Assembly

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The, (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Cleveland Wire Spring Co., The, Cleveland.
Geuder, Paeschke & Frey Co., Milwaukee.
Littleford Bros., Cincinnati, Ohio.
Palmer-Bee Co., Detroit, Mich.
Stevens, Walden, Inc., Worcester, Mass.

Paper, Asbestos

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
National Asbestos Mfg. Co., Jersey City, N. J.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Paper, Roofing

Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Ruberoid Co., The, New York, N. Y.

Paper and Cloth—Sand, Emery, Garnet and Flint

(See "Coated Abrasives")

Partitions, Factory, Wire

Buffalo Wire Works Co., Inc., Buffalo.
Cyclone Fence Co., Waukegan, Ill.
Hauserman, E. F., Co., The, Cleveland, O.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.

Partitions, Steel

Cyclone Fence Co., Waukegan, Ill.
Hauserman, E. F., Co., The, Cleveland, O. (Movable)

Paste, Pipe Covering

Armstrong Cork Products Co., Lancaster, Pa.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Paste, Soldering

American Solder & Flux Co., Philadelphia.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Burnley Battery & Mfg. Co., North East, Pa.
Dunton, M. W., Co., The, Providence, R. I.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Imperial Brass Manufacturing Co., Chicago, Ill.
McGill Mfg. Co., Valparaiso, Ind.
Prier Brass Mfg. Co., Kansas City, Mo.
Sulflo Corporation of America, Elizabeth, N. J.

Pattern Letters and Figures

(See "Letters and Figures, Pattern")

Pegs, Belt Lacing

(See "Pins or Pegs, Belt Lacing")

Pickers, Loom

Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Gates Electric Co., Schenectady, N. Y.
General Electric Co., Schenectady, N. Y.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
Schieren, Chas. A., Co., New York, N. Y.

Picks, Mattocks and Grub Hoes

American Fork & Hoe Co., Cleveland.
Ames, Baldwin, Wyoming Shovel Co., North Easton, Mass.
Collins Co., The, Collinsville, Conn.
Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Littleford Bros., Cincinnati, Ohio.

Picks, Mill and Boiler

Leetonia Tool Co., The, Leetonia, Ohio.
Onesti Bros., Highland Park, Ill.

Pike Poles

(See "Poles, Pike")

Pilers

(See "Elevators, Pilers or Stackers, Portable")

Pillow Blocks

(See "Blocks, Pillow")

Pincers, Blacksmiths' and Carpenters'

Crescent Tool Co., Jamestown, N. Y.
Hammel, Riglander & Co., Inc., New York.
Heller Brothers Co., Newark, N. J.
Sargent & Co., New Haven, Conn.

Pinions

(See "Gears and Pinions")

Pins or Pegs, Belt Lacing

Armstrong-Bray & Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit Belt Lacer Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Tilghman, T. H., & Sons, Salisbury, Md.
Western Rawhide & Belting Co., Milwaukee, Wis.

Pins, Bending, Plumbers'

Bernz, Otto, Co., Inc., Rochester, N. Y.
Johnson, William, Inc., Newark, N. J.

Pins, Cotter

(See "Cotter Pins and Spring Keys")

Pins or Plugs, Drift

Bernz, Otto, Co., Inc., Rochester, N. Y.
Johnson, William, Inc., Newark, N. J.
Stanley Rule & Level Plant, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

Pins, Taper

Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Eaton Manufacturing Co. (Reliance Spring Washer Division), Massillon, O.
Dallett Co., The, Philadelphia, Pa.
Hartford Machine Screw Co., Hartford, Conn.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Leard, William, Co., Inc., The, New Brighton, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Rockford Screw Products Co., Rockford, Ill.
Standard Steel Specialty Co., Beaver Falls, Pa.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
United Screw & Bolt Corp., Cleveland, O.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Worcester Taper Pin Co., Worcester, Mass.

Pins, Turn, Plumbers'

Bernz, Otto, Co., Inc., Rochester, N. Y.
Johnson, William, Inc., Newark, N. J.

Pipe Bending Machines

(See "Machines, Bending, Pipe")

Pipe Bends and Coils

(See "Bends and Coils, Pipe")

Pipe, Black and Galvanized, Steel—Steam, Water and Gas

Allegheny Steel Co., Brackenridge, Pa.
American Rolling Mill Co., The, Middletown, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Central Tube Co., Pittsburgh, Pa.
Crane Co., Chicago, Ill.
Fretz-Moon Tube Co., Inc., East Butler, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Keating, E. F., Co., New York, N. Y.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Naylor Pipe Co., Chicago, Ill.
Reading Iron Co., Philadelphia, Pa.
Republic Steel Corp., Cleveland, Ohio.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh.
Walworth Co., New York, N. Y.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Pipe, Black and Galvanized, Wrought Iron—Steam, Water and Gas

American Radiator Co., New York, N. Y.
American Rolling Mill Co., The, Middletown, Ohio.

DISTRIBUTORS

Attention

Large Stocks Carried For Your Convenience

TAPER PINS
WOODRUFF & MACHINE KEYS

STANDARD STEEL SPECIALTY CO.

Eastern Plant: BEAVER FALLS, PA.
Write for Lists and Discounts
Western Plant: HAMMOND, IND.

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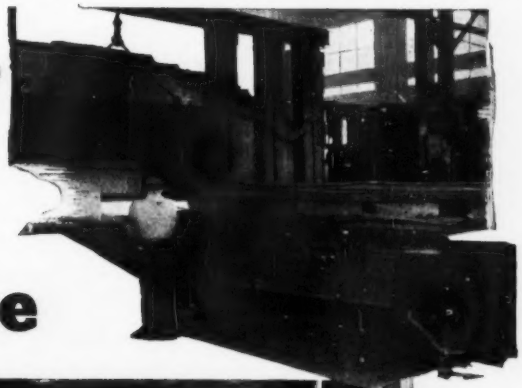
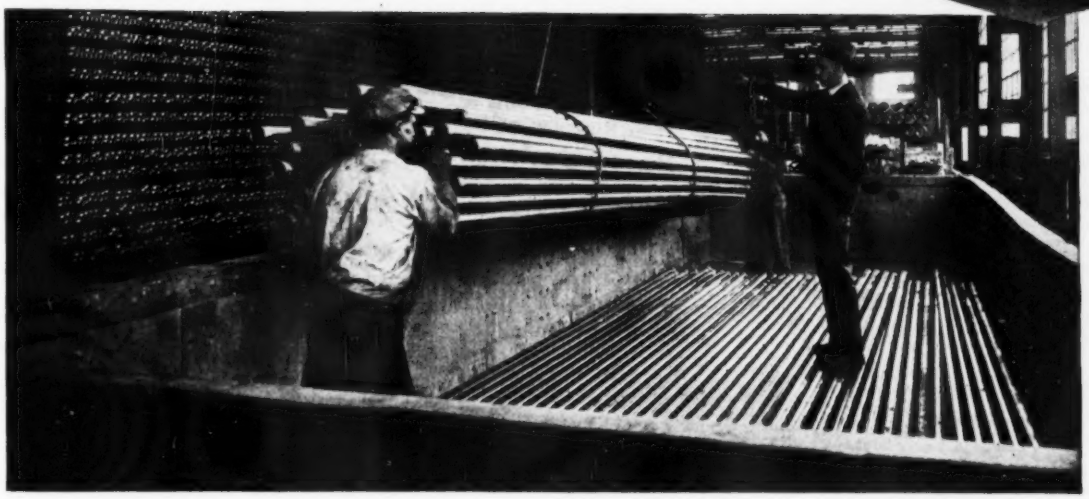
AMONG THE PLUS + FACTORS IN BETHLEHEM PIPE

We don't hurry in *making* Bethlehem Pipe





but we do in *shipping* it

BETHLEHEM PIPE isn't made in a hurry. Production moves along at a steady, even pace. This is one of the reasons for the presence in every length of the plus factors that make Bethlehem Pipe so economical to install and so satisfactory in the service that it gives.

But when it comes to making shipments, that's a different story. It is regular practice to make shipments of Bethlehem Pipe, from the large mill stocks that are constantly maintained, within 24 hours of the receipt of the order. When the occasion demands, many shipments are made on the same day that the order is received.

These ample mill stocks are assurance to distributors and users that they can get Bethlehem Pipe when they want it—an important plus factor in service to match the plus factors to be found in the pipe itself.

BETHLEHEM STEEL COMPANY, *General Offices:* Bethlehem, Pa. *District Offices at* Albany, Atlanta, Baltimore, Boston, Bridgeport, Buffalo, Chicago, Cincinnati, Cleveland, Dallas, Detroit, Honolulu, Houston, Indianapolis, Kansas City, Los Angeles, Milwaukee, New York, Philadelphia, Pittsburgh, Portland, Ore., Salt Lake City, San Antonio, San Francisco, St. Louis, St. Paul, Seattle, Syracuse, Washington, Wilkes-Barre, York. *Export Distributor:* Bethlehem Steel Export Corporation, New York.

BETHLEHEM STEEL COMPANY

BETHLEHEM STEEL

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Byers, A. M., Co., Pittsburgh, Pa.
Crane Co., Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Mueller Brass Co., Port Huron, Mich.
Naylor Pipe Co., Chicago, Ill.
Pancoast, Henry B., Co., Philadelphia.
South Chester Tube Co., Chester, Pa.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pipe, Brass and Copper

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Radiator Co., New York, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Revere Copper and Brass, Inc., Rome Division, Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich.

Pipe, Cast Iron, Flanged

American Cast Iron Pipe Co., Birmingham, Ala.
Clow, James B., & Sons, Chicago, Ill.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Keating, E. F., Co., New York, N. Y.
Lynchburg Foundry Co., Lynchburg, Va.
M & H Valve & Fittings Co., Anniston, Ala.
McWane Cast Iron Pipe Co., Birmingham, Ala.
Pacific States Cast Iron Pipe Co., Provo, Utah.
Walworth Co., New York, N. Y.

Pipe, Cast Iron, Flexible Joint

American Car and Foundry Co., New York.
American Cast Iron Pipe Co., Birmingham, Ala.
Barco Manufacturing Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Lynchburg Foundry Co., Lynchburg, Va.
McWane Cast Iron Pipe Co., Birmingham, Ala.
Pacific States Cast Iron Pipe Co., Provo, Utah.

Pipe, Cast Iron, Water and Gas

American Cast Iron Pipe Co., Birmingham, Ala.
American Radiator Co., New York, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Keating, E. F., Co., New York, N. Y.
Lynchburg Foundry Co., Lynchburg, Va.
M & H Valve & Fittings Co., Anniston, Ala.
McWane Cast Iron Pipe Co., Birmingham, Ala.
Medina Iron & Brass Co., Medina, N. Y.
Pacific States Cast Iron Pipe Co., Provo, Utah.
Walworth Co., New York, N. Y.

Pipe, Conductor

(See "Down Spouts or Conductor Pipe")

Pipe, Copper

(See "Pipe, Brass and Copper" and "Tubing—Brass, Bronze and Copper")

Pipe, Covering

(See "Covering, Pipe and Boiler")

Pipe Cutting and Threading Machines and Tools

(See "Machines, Cutting and Threading, Pipe," "Stocks and Dies," and "Dies, Pipe Threading," "Cutters, Pipe" and "Cutters, Lead Pipe")

Pipe, Drive

Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Reading Iron Co., Philadelphia, Pa.
Republic Steel Corp., Cleveland, Ohio.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh, Pa.
Walworth Co., New York, N. Y.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Pipe, Fabricated

American Rolling Mill Co., The, Middletown, Ohio.
Bartlett Hayward Co., The, Baltimore, Md.
Bethlehem Steel Co., Bethlehem, Pa.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Continental-Diamond Fibre Co., Newark, Del.
Crane Co., Chicago, Ill.
Fabricated Steel Products Co., The, Wheeling, W. Va.
Grinnell Co., Inc., Providence, R. I.
Keating, E. F., Co., New York, N. Y.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
Littleford Bros., Cincinnati, Ohio.
Mitchell, W. K., & Co., Inc., Philadelphia.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wolverine Tube Co., Detroit, Mich.

Pipe, Fibre

(See "Fibre, Hard")

Pipe, Glass

Corning Glass Works, Corning, N. Y.

Pipe Grooving Tools

(See "Tools, Grooving, Pipe")

Pipe Hangers

(See "Hangers, Pipe")

Pipe, Hard Rubber

Continental-Diamond Fibre Co., Newark, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.

Pipe, Hydraulic

American Rolling Mill Co., The, Middletown, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Pipe, Lead

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
Michigan Smelting & Refining Co., Detroit.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Prier Brass Mfg. Co., Kansas City, Mo.
Rochester Lead Works, Rochester, N. Y.

Pipe, Lead, Tin Lined

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Rochester Lead Works, Rochester, N. Y.

Pipe, Lead Lined

Keating, E. F., Co., New York, N. Y.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.

Pipe Openers, Chemical Compound

Coleman, Allan J., Chicago, Ill.
Desolvo Manufacturing Co., Pittsburgh.
Hercules Chemical Co., Inc., New York.

Pipe Pushers

(See "Pushers, Pipe")

Pipe, Spiral, Riveted or Lock Seam

American Rolling Mill Co., The, Middletown, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Fitz Water Wheel Co., Hanover, Pa.
Keating, E. F., Co., New York, N. Y.
Naylor Pipe Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.

Pipe, Spiral, Welded

American Rolling Mill Co., The, Middletown, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Naylor Pipe Co., Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.

Pipe, Steam Jacketed

Keating, E. F., Co., New York, N. Y.
Littleford Bros., Cincinnati, Ohio.

Pipe, Straight Riveted

Bartlett Hayward Co., The, Baltimore, Md.
Bethlehem Steel Co., Bethlehem, Pa.
Fitz Water Wheel Co., Hanover, Pa.
Ingalls Iron Works Co., The, Birmingham, Ala.
Keating, E. F., Co., New York, N. Y.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Sacramento Pipe Works, Sacramento, Calif.

Pipes, Brazing and Blow

Air Reduction Sales Co., New York, N. Y.
American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Dockson, C. H., Co., Detroit, Mich.
Hammel, Riglander & Co., Inc., Importers, New York, N. Y.
Torit Manufacturing Co., St. Paul, Minn.
Weldit Acetylene Co., Detroit, Mich.

Pipes, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Piping, Blow, Exhaust and Ventilating

Burt Manufacturing Co., The, Akron, O.
Naylor Pipe Co., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.

Planers, Metal Working

Rockford Machine Tool Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.

Planers, Woodworking

Boice-Crane Co., Toledo, Ohio.
Champion Blower & Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa
Heston & Anderson, Fairfield, Iowa.
Lane Mfg. Co., Montpelier, Vt.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Oliver Machinery Co., Grand Rapids, Mich
Swett, Frank W., & Son, Chicago, Ill.
Van Dorn Electric Tool Co., The, Towson, Md.
Wallace, J. D., & Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Planes, Electric, Portable

Heston & Anderson, Fairfield, Iowa.
Wappat, Inc., Pittsburgh, Pa.

Planes, Wood and Iron

Millers Falls Co., Greenfield, Mass.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.

Planimeters

Dietzgen, Eugene, Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
Keuffel & Esser Co., Hoboken, N. J.
Murray, William H., Brooklyn, N. Y.
Trill Indicator Co., Corry, Pa.

Plates, Angle, for Boring and Grinding Machines

Inland Steel Co., Chicago, Ill.

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Plates, Base

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Rolling Mill Co., The, Middletown, Ohio.
Bond Foundry and Machine Co., Manheim, Pa. (Plain and Adjustable)
Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Conco Engineering Works, Mendota, Ill.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Crucible Steel Co. of America, New York, N. Y.
Dick, R. & J., Co., Inc., Passaic, N. J.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Frederick Iron & Steel Co., The, Frederick, Md.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Inland Steel Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Noyes, B. B., Co., Greenfield, Mass.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Plates, Belt

(See "Fasteners and Hooks, Belt")

Plates, Floor and Ceiling

American Rolling Mill Co., The, Middletown, Ohio.
Carnegie-Illinois Steel Corp., Pittsburgh.
Chicago Nipple Mfg. Co., Chicago, Ill.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Inland Steel Co., Chicago, Ill.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Plates, Handhole, Boiler

(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

Plates, Name, Bronze

Atlas Brass Foundry Co., The, Columbus, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, O.
Everhot Mfg. Co., Maywood, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Knight, H. W., & Son, Seneca Falls, N. Y.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.) Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Messmer Brass Co., St. Louis, Mo.
Newman Bros., Inc., Norwood, Cincinnati, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Prier Brass Mfg. Co., Kansas City, Mo.
Sargent & Co., New Haven, Conn.
Torrey Roller Bushing Works, Bath, Me.
Turner Brass Works, The, Sycamore, Ill.

Plates, Name, Machinery

Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.) Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Newman Bros., Inc., Norwood, Cincinnati.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Torrey Roller Bushing Works, Bath, Me.
Turner Brass Works, The, Sycamore, Ill.

Plates, Railroad Tie

Bethlehem Steel Co., Bethlehem, Pa.
Carnegie-Illinois Steel Corp., Pittsburgh.
Inland Steel Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Wheeling Steel Corp., Wheeling, W. Va.

Plates, Ring, for Pipe

Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Pittsburgh Valve & Fitting Co., Barberton, Ohio.

Plates, Screw

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Butterfield & Co., Division of Union Twist Drill Co., Derby Line, Vt.

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Plates, Surface, Cast Iron

Brown & Sharpe Mfg. Co., Providence, R.I.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Clow, James B., & Sons, Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Frederick Iron & Steel Co., The, Frederick, Md.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Noyes, B. B., Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Plates and Powders—Welding, Brazing and Tempering

American Solder & Flux Co., Philadelphia.
Bastian-Blessing Co., Chicago, Ill.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Colmonoy, Inc., Los Nietos, Calif.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Torchweld Equipment Co., Chicago, Ill.

Platforms, Lift Truck

All Steel Welded Truck Corp., Rockford, Ill.
American Car and Foundry Co., New York.
Electric Wheel Co., Quincy, Ill.
Excelsior Plimp Truck Co., Stamford, Conn.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Lyon Iron Works, Greene, N. Y.
Menasha Wood Split Pulley Co., Menasha, Wis.
Schwenk Safety Device Corp., New York.
Standard Pressed Steel Co., Jenkintown, Pa.
Truscon Steel Co., Youngstown, Ohio.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Platforms, Skid

All Steel Welded Truck Corp., Rockford, Ill.
American Car and Foundry Co., New York.
Lyon Iron Works, Greene, N. Y.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Plating and Polishing Brushes

(See "Brushes, Platers' and Polishers' ")

Plating and Polishing Supplies

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Boyle, A. S., Co., The, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Harrison & Co., Haverhill, Mass.
Keystone Emery Mills, Philadelphia, Pa.
Minnesota Mining & Mfg. Co., St. Paul, Minn. (Polishing only)
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Prier Brass Mfg. Co., Kansas City, Mo.

Pliers

Barcalo Mfg. Co., Buffalo, N. Y.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Co., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Erie Tool Works, The, Erie, Pa.
Fletcher-Terry Co., The, Forestville, Conn.
Forged Steel Products Co., Newport, Pa.
Grobet File Corp. of America, New York.
Hammel, Riglander & Co., Inc., New York.
Hinsdale Manufacturing Co., Chicago, Ill.
Hunt, Geo. L. Mfg. Co., Boscobel, Wis.
Klein, M., & Sons, Chicago, Ill.
Kraeuter & Co., Inc., Newark, N. J.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Sandvik Saw & Tool Corp., Minneapolis.
Schollhorn, Wm., Co., The, New Haven, Conn.
Snap-On Tools, Inc., Kenosha, Wis.
Vichek Tool Co., The, Cleveland, Ohio.
Wave Cut File & Tool Corp., New York.

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Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Farnan Brass Works Co., The, Cleveland, Ohio.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Tranter Mfg. Co., Pittsburgh, Pa.
Trico Fuse Mfg. Co., Milwaukee, Wis.
Walworth Co., New York, N. Y.

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Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Atlas Brass Foundry, Los Angeles, Calif.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Elco Tool & Screw Corp., Rockford, Ill.
Essex Brass Corp., Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hartford Machine Screw Co., Hartford, Conn.
Haydenville Co., The, Haydenville, Mass.
Holo-Krome Screw Corp., The, Hartford, Conn.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Messmer Brass Co., St. Louis, Mo.
Mueller Co., Decatur, Ill.
National Screw & Mfg. Co., The, Cleveland.
Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Ralco Manufacturing Co., Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
United Screw & Bolt Corp., Cleveland, O.
Walworth Co., New York, N. Y.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williams, Franklin, Inc., Orange, N. J.

Plugs, Pipe, Cast Iron

Allen, W. D., Mfg. Co., Chicago, Ill.
American Cast Iron Pipe Co., Birmingham, Ala.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
National Screw & Mfg. Co., The, Cleveland.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Ralco Manufacturing Co., Chicago, Ill.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Plugs, Pipe, Malleable Iron

Allen, W. D., Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
National Screw & Mfg. Co., The, Cleveland.
Newbury Manufacturing Co., Monroe, N. Y.
Walworth Co., New York, N. Y.

Plugs, Pipe, Steel

Allen Mfg. Co., The, Hartford, Conn.
Allen, W. D., Mfg. Co., Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Crane Co., Chicago, Ill.
Elco Tool & Screw Corp., Rockford, Ill.
Harrisburg Steel Corp., Harrisburg, Pa.
Hartford Machine Screw Co., Hartford, Conn.
Holo-Krome Screw Corp., The, Hartford, Conn.
Kerotest Manufacturing Co., Pittsburgh.
Lamson & Sessions Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland.
Newbury Manufacturing Co., Monroe, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., Cleveland, Ohio.
United Screw & Bolt Corp., Cleveland, O.
Watson-Stillman Co., The, Roselle, N. J.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Plugs, Staybolt

Key Co., East St. Louis, Ill.

Plugs, Tap, Boiler and Pipe Repair

Crane Co., Chicago, Ill.
Multi-Seal Manufacturing Co., Chicago, Ill.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Plumb Bobs

American Swiss File & Tool Co., Elizabeth, N. J.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Brown & Sharpe Mfg. Co., Providence, R.I.
Dietzgen, Eugene Co., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Keuffel & Esser Co., Hoboken, N. J.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Ruleta Co., Inc., New York, N. Y.
Sargent Co., Chicago, Ill.
Starrett, L. S., Co., The, Athol, Mass.

Plumbago

(See "Graphite")

Plumbers' Tools

(See "Tools—Plumbers', Steam and Gas Fitters'")

Plungers, Pump

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Chicago Rawhide Mfg. Co., The, Chicago.
Coleman, Allan J., Chicago, Ill.
Mark Clayton, & Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.

Points, Drill

Chicago Expansion Bolt Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland.
Crucible Steel Co. of America, New York, N. Y.
Dallett Co., The, Philadelphia, Pa.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Star Expansion Bolt Co., New York, N. Y.

Points, Drive Well

Mark, Clayton, & Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Points and Centers, Lathe

(See "Centers and Points, Lathe")

Points, Stone

American Swiss File & Tool Co., Elizabeth, N. J.
Behr-Manning Corp., Troy, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crucible Steel Co. of America, New York, N. Y.
Dallett Co., The, Philadelphia, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

Pole Gaining Machine

Wappat, Inc., Pittsburgh, Pa.

Poles, Flag

Fabricated Steel Products Co., The, Wheeling, W. Va.
National Tube Co., Pittsburgh, Pa.
Sacramento Pipe Works, Sacramento, Calif. (Steel)

Poles, Pike

American-LaFrance and Foamite Corp., Elmira, N. Y.
American Logging Tool Co., Evart, Mich.
Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Mfg. Co., Philadelphia.

Polish, Metal

Baum's Castorine Co., Rome, N. Y.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Grady Mfg. Co., The, Long Island City, N. Y.
Harris, A. W., Oil Co., Providence, R. I.
Hinds and Coon Co., Boston, Mass.
Kimball, C. M., Co., Everett, Mass.
Matchless Metal Polish Co., The, Chicago.
Miller, Walter W., Co., Indianapolis, Ind.
Patterson Lubricating Co., Boston, Mass.
Paul, J. C., & Co., Chicago, Ill.
Skat Co., The, Hartford, Conn.
Solarine Co., Baltimore, Md.

Polishing Machines

(See "Machines, Buffing and Polishing, Stationary," and "Machines, Sanding and Polishing")

Polishing Supplies

(See "Plating and Polishing Supplies")

Polishing Wheels

(See "Wheels, Buffing and Polishing")

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Posts, Drilling

Armstrong Bros. Tool Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Posts, Indicator, Valve

American Foundry & Mfg. Co., St. Louis.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Posts, Tool, Lathe

Armstrong Bros. Tool Co., Chicago, Ill.
Williams, J. H., & Co., New York, N. Y.

Posts, Vise, Portable

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Ridge Tool Co., The, Elyria, Ohio.

Pots—Annealing, Case Hardening, Etc.

American Car and Foundry Co., New York.
Cleveland Wire Spring Co., The, Cleveland, Ohio.
Garwood Bronze & Iron Works, Garwood, N. J.
General Electric Co., Schenectady, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

Pots, Fire

(See "Furnaces, Soldering")

Pots, Galvanizing

(See "Kettles and Pots, Galvanizing")

Pots, Glue

(See "Heaters and Pots, Glue")

Pots and Kettles, Metal Melting

American Car and Foundry Co., New York.
Bellevue Industrial Furnace Co., Detroit.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Clow, James B., & Sons, Chicago, Ill.
Electro Engineering Co., Inc., Richmond, Hill, New York, N. Y. (Electric)
Farrel-Birmingham Co., Inc., Ansonia, Conn.
General Electric Co., Schenectady, N. Y.
Hauck Manufacturing Co., Brooklyn.
Hollands Mfg. Co., Erie, Pa.
Hones, Chas. A., Inc., Baldwin, N. Y.
Littleford Bros., Cincinnati, Ohio.
Russell Electric Co., Chicago, Ill. (Electric)
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swett, A. L., Iron Works, Medina, N. Y.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

Pots, Plumbers' Melting

American Foundry & Mfg. Co., St. Louis.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hollands Mfg. Co., Erie, Pa.
Hones, Chas. A., Inc., Baldwin, N. Y.
Johnson, William, Inc., Newark, N. J.
Littleford Bros., Cincinnati, Ohio.
Swett, A. L., Iron Works, Medina, N. Y.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Chicago, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Pots, Pouring

American Car and Foundry Co., New York.
American Foundry & Mfg. Co., St. Louis.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
Littleford Bros., Cincinnati Ohio.
Swett, A. L., Iron Works, Medina, N. Y.
Trent, Harold E., Co., Philadelphia, Pa.

Pots, Soldering

American Foundry & Mfg. Co., St. Louis.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Electric Soldering Iron Co., Inc., New York.
Electro Engineering Co., Inc., Richmond Hill, New York, N. Y. (Electric)
General Electric Co., Schenectady, N. Y.
Hollands Mfg. Co., Erie, Pa.
Hones, Chas. A., Inc., Baldwin, N. Y.
Johnson, William, Inc., Newark, N. J.
Littleford Bros., Cincinnati, Ohio.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Russell Electric Co., Chicago, Ill. (Electric)
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swett, A. L., Iron Works, Medina, N. Y.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Turner Brass Works, The, Sycamore, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Pots, Tempering and Hardening

Bellevue Industrial Furnace Co., Detroit.
Garwood Bronze & Iron Works, Garwood, N. J.
Russell Electric Co., Chicago.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa.

Pots, Tallow

Anthes Force Oiler Co., Fort Madison, Ia.
Eagle Manufacturing Co., Wellsburg, W. Va.
Gem Manufacturing Co., Pittsburgh, Pa.

Powders, Abrasive

(See "Emery and Other Abrasives")

Powders, Blasting

(See "Explosives")

Powders—Welding, Brazing and Tempering

(See "Plates and Powders—Welding, Brazing and Tempering")

Power Transmission Equipment

(See "Machinery, Power Transmission" and specific items)

Preheating Equipment, Welding

Bastian-Blessing Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Diamond Iron Works, Inc., Minneapolis.
Hauck Manufacturing Co., Brooklyn, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Turner Brass Works, The, Sycamore, Ill.

Preservatives, Belting, Rope and Wire

(See "Dressing and Lubricants" and "Wax, Belt")

Presses, Baling

Business Men's Paper Press Co., Wayland, Mich.
Cardwell Machine Co., The, Richmond, Va.
Economy Baler Co., Ann Arbor, Mich.
Economy Manufacturing Co., Philadelphia, Pa. (Paper balers)
Farquhar, A. B., Co., Ltd., York, Pa.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Minnich Machine Works, Landisville, Pa.
Rowe Manufacturing Co., Galesburg, Ill. (Paper)
Tallman Manufacturing Co., Shelbyville, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Presses, Belting, Leather

Farrel-Birmingham Co., Inc., Ansonia, Conn.

Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lourie Manufacturing Co., Chicago.
Watson-Stillman Co., The, Roselle, N. J.

Presses, Drill

(See "Machines, Drilling")

Presses, Forcing

Atlas Press Co., Kalamazoo, Mich.
Bartlett, Edwin E., Co., Nashua, N. H.
Champion Blower & Forge Co., Lancaster, Pa.
Farquhar, A. B., Co., Ltd., York, Pa.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hannifin Manufacturing Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lourie Manufacturing Co., Chicago, Ill.
Manley Manufacturing Division of American Chain Co., Inc., York, Pa.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Watson-Stillman Co., The, Roselle, N. J.
Wright Mfg. Div. of American Chain Co., York, Pa.

Presses, Riveting

(See "Riveters")

Presses, Screw

American Chain Co., Inc., Bridgeport, Conn.
Barnes, W. F. & John, Co., Rockford, Ill.
Cardwell Machine Co., The, Richmond, Va.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Keckley, O. C., Co., Chicago, Ill.
Minnich Machine Works, Landisville, Pa.
Wright Mfg. Div. of American Chain Co., York, Pa.

Presses, Straightening, Stock and Shafting

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Watson-Stillman Co., The, Roselle, N. J.
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Preventives, Rust

(See "Rust Preventives and Removers")

Primers, Centrifugal Pump

Automatic Primer Co., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
Schutte & Koerting Co., Philadelphia, Pa.

Protectors, Blow-Off

Bastian-Blessing Co., Chicago, Ill.
Green, A. P., Fire Brick Co., Mexico, Mo.
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Protectors—Hand, Foot and Body

(See "Gloves and Mittens, Protective," "Leggings, Safety," "Guards, Foot," "Overshoes, Asbestos," "Safety Outfits, Fire Fighting, Asbestos," "Shields, Hand, Welders'," "Shoes, Protective, Workmen's," etc.)

Protectors, Thread

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Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Toledo Pressed Steel Co., The, Toledo, Ohio.

Protractors

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Dietzgen, Eugene, Co., Chicago, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.

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Porter, H. K., Inc., Everett, Mass.
Schollhorn, Wm., Co., The, New Haven, Conn.

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(See "Extractors, Rivet")

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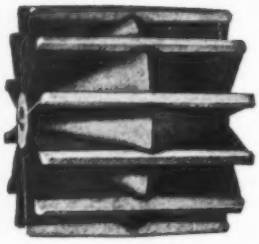

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(See "Pulleys, Motor")

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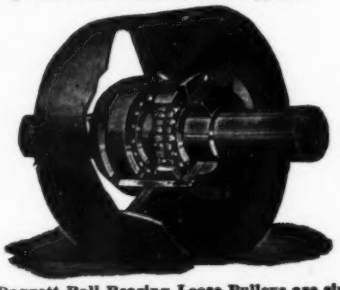

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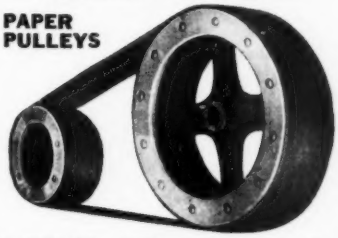

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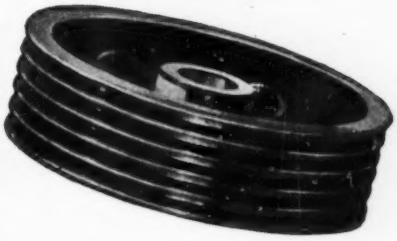

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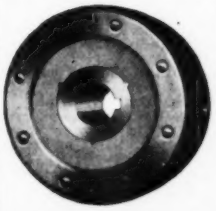

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Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rockwood Mfg. Co., Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Starline, Inc., Harvard, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pulleys, Rope

(See "Sheaves, Rope, Power Transmission")

Pulleys, Steel

American Pulley Co., The, Philadelphia.
Chain Belt Co., Milwaukee, Wis.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Maurey Manufacturing Corp., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pulleys, Steel Rim, Iron Center

Medart Co., St. Louis, Mo.

Pulleys, Step and Taper Cone

Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago.
Rockwood Mfg. Co., Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Textile, Special

Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.

DICK DRIVES AND POWER TRANSMISSION SPECIALTIES

Barry Steel Split Pulley
Scientifically strong

The Rivetless welded pulley with maximum adaptation of tubular construction.

*Also V-Belt sheaves with interchangeable bushings.

*Made by Barry Pulley Co., Inc., at Muscatine, Iowa, a subsidiary of the exclusive distributors

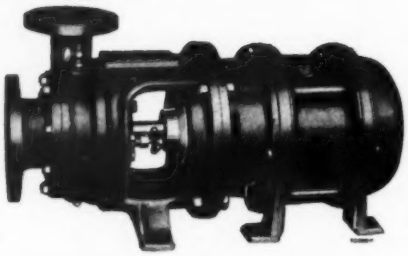
R. & J. DICK CO. Inc., **Passaic, N. J.**
Branches—New York, Chicago, Seattle, San Francisco, Kansas City, New Orleans

CAMERON PUMPS

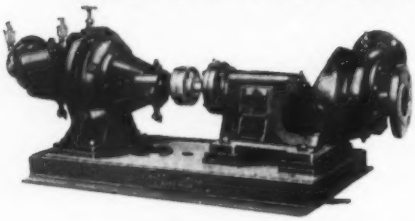
A size and type of pump for every duty. Complete sales and engineering service. Stock shipment on most items. You can do a better and more profitable job with Cameron pumps.

The MOTOR PUMP

A compact modern pump with built-in motor. Capacities from 5 to 1000 gals. per min. Stock shipment.



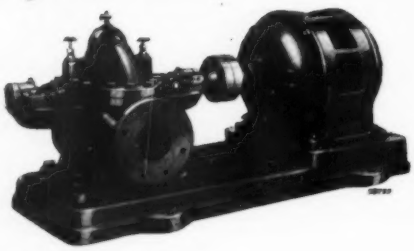
END-SUCTION COUPLED PUMPS



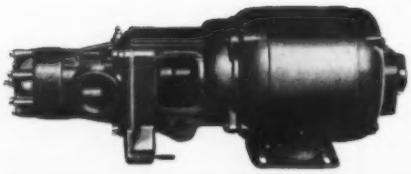
A rugged, efficient pump for use with any type of driver. Capacities from 10 to 1000 gals. per min.

The Coupled Pump

A high quality pump for general service. Capacities from 50 to 5000 gals. per min. Quick shipment.



The CAM-IRON PUMP



A rotary pump for oils and lubricating liquids. Capacities from 1 to 70 gals. per min.

Ingersoll-Rand

11 Broadway, New York City

Foote Gear Works, Inc., Cicero, Ill.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
Rockwood Mfg. Co., Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Pulleys, Wood

Brown, D. P., & Co., Philadelphia, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Lignum-Vitae Products Corp., Jersey City, N. J.
Medart Co., St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Miller Machine Works, Springs, Pa.
Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
Oneida Wood Pulley Co., Inc., Oneida, N. Y.
Pyott Foundry & Machine Co., Chicago, Ill.
Reeves Pulley Co., Columbus, Ind.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pulleys, Wood Rim, Iron Center

Dodge Manufacturing Corp., Mishawaka, Ind.
Medart Co., St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.

Pump Jacks

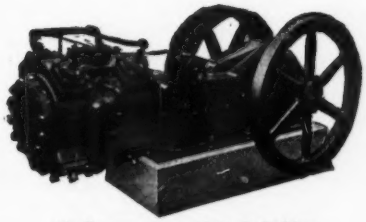
Aurora Pump Co., Aurora, Ill.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Joyce-Cridland Co., The, Dayton, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Midland Mfg. Co., Ft. Worth, Tex.
Nelson Bros. Co., Saginaw, Mich.
Oliver-Barth Jack Co., Milwaukee, Wis.
Sutorbilt Corp., Los Angeles, Calif.
Watson-Stillman Co., The, Roselle, N. J.

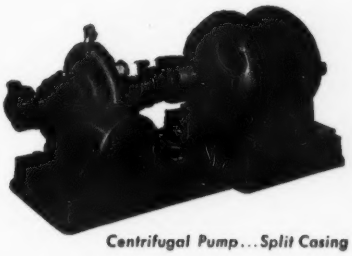
Pumps, Bilge, Sewage and Sump
(See also "Drainers, Cellar or Pit")

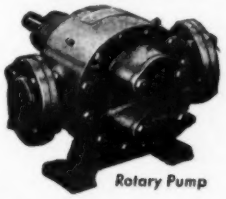
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Automatic Primer Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chain Belt Co., Milwaukee, Wis.
Chicago Pneumatic Tool Co., New York.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
List, E. J., Mfg. Co., Havana, Ill.
Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
Mall Tool Co., Chicago, Ill.
McGowan, John H., Co., The, Cincinnati, Ohio.
Micro-Westco, Inc., Bettendorf, Iowa.
Morris Machine Works, Baldwinsville, N. Y.
Mummert-Dixon Co., Hanover, Pa.
Myers, F. E., & Bro. Co., Ashland, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Penberthy Injector Co., Detroit, Mich.
Perkins Marine Lamp & Hardware Corp., Brooklyn.
Pulsometer Steam Pump Co., Irvington, N. J.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swaby Mfg. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Taber Pump Co., Buffalo, N. Y.

MILLS AND FACTORIES EVERYWHERE

Tank-mounted Air Compressor

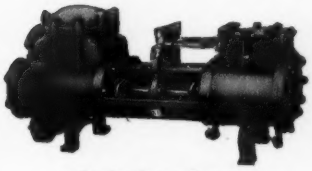

Air Compressor... Motor-belt-drive Also Steam Driven

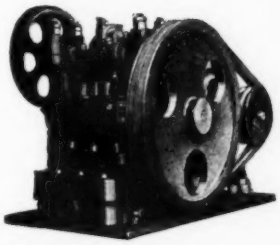

Centrifugal Pump... Split Casing


Rotary Pump

Centrifugal Pump... End-suction Type

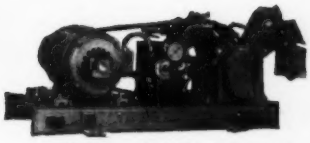
Vertical Compressor... Water-cooled Type


Duplex Steam Pump


Triplex Power Pump

Multi-V-Drive

Monobloc Centrifugal Pump


Base-mounted Air Compressor

Turbine Deep Well Pump

Feedwater Heater

are being served by Qualified Worthington Dealers

THE Worthington dealer knows that the permanency of his business can be built only on the highest quality of product and service. That is why he is a Worthington Dealer.

WORTHINGTON PUMP AND MACHINERY CORPORATION

General Offices: **HARRISON, NEW JERSEY** - *Branch Offices and Representatives in Principal Cities throughout the World*

WORTHINGTON

ATLANTA BOSTON BUFFALO CHICAGO CINCINNATI CLEVELAND DALLAS DENVER DETROIT EL PASO HOUSTON KANSAS CITY LOS ANGELES NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH ST. LOUIS ST. PAUL SAN FRANCISCO SEATTLE TULSA WASHINGTON

A-36674C

Union Steam Pump Co., Battle Creek, Mich.
Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
Watson & McDaniel Co., Philadelphia, Pa.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Boiler Feed

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Frederick Iron & Steel Co., Frederick, Md.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Cal.
McGowan, John H., Co., The, Cincinnati.
Manistee Iron Works Co., Manistee, Mich.
Micro-Westco, Inc., Bettendorf, Iowa.
Moore Steam Turbine Corp., Wellsville, N. Y.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse.
Pennsylvania Pump & Compresser Co., Easton, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Skidmore Corp., St. Joseph, Mich.
Union Steam Pump Co., Battle Creek, Mich
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Boiler Test

Belfield, H., Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Henderer's, A. L., Sons, Wilmington, Del.
Hills-McCanna Corp., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Manistee Iron Works Co., Manistee, Mich.
Micro-Westco, Inc., Bettendorf, Iowa.
Morris Machine Works, Baldwinsville, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Scully-Jones & Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.

Pumps, Cellar Drainer

(See "Drainers, Cellar or Pit")

Pumps, Centrifugal

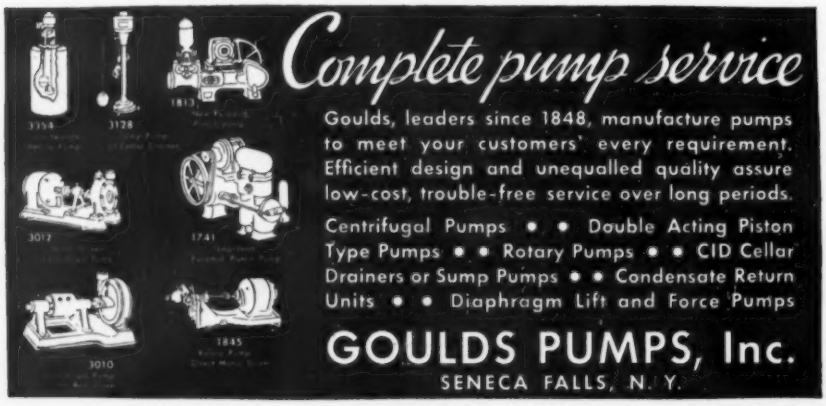
Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Aurora Pump Co., Aurora, Ill.
Automatic Primer Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chain Belt Co., Milwaukee, Wis.
Crane Co., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
DeLaval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., Ashland, Ohio.
National Lead Co., New York, N. Y.
Nelson Brothers Co., Saginaw, Mich.
Oberdorfer, M. L., Brass Co., Syracuse.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swaby Mfg. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Circulating, Rotary Geared

Atlas Brass Foundry Co., The, Columbus, Ohio.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Crane Co., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Frederick Iron & Steel Co., The, Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Meier Electric and Machine Co., Indianapolis, Ind.
Micro-Westco, Inc., Bettendorf, Iowa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Cistern and Sink

Crane Co., Chicago, Ill.
Decatur Pump Co., Decatur, Ill.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind. (Cistern only)



Goulds Pumps, Inc., Seneca Falls, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Meier Electric and Machine Co., Indianapolis, Ind.
Micro-Westco, Inc., Bettendorf, Iowa.
Myers, F. E., & Bro. Co., Ashland, Ohio.
Nelson Bros. Co., Saginaw, Mich.
Red Cross Mfg. Co., The, Bluffton, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Viking Pump Co., Cedar Falls, Iowa.

Pumps, Condensation

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Radiator Co., New York, N. Y.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Domestic Engine & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Loane Engineering Co., Baltimore, Md.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., Ashland, Ohio.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Skidmore Corp., Chicago, Ill.
Swaby Mfg. Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Deep Well

Aldrich Pump Co., The, Allentown, Pa.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Chicago Pneumatic Tool Co., New York.
Crane Co., Chicago, Ill.
Cullman Wheel Co., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
Deming Co., The, Salem Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Frederick Iron & Steel Co., The, Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
McGowan, John H., Co., The, Cincinnati, O.
Mark, Clayton & Co., Chicago, Ill.
Meier Electric and Machine Co., Indianapolis, Ind.
Micro-Westco, Inc., Bettendorf, Iowa.
Midland Mfg. Co., Ft. Worth, Tex.
Myers, F. E., & Bro. Co., The, Ashland, O.
Nelson Brothers Co., Saginaw, Mich.
Pomona Pump Co., Pomona, Calif.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Diaphragm

Boston & Lockport Block Co., East Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Construction Machinery Co., Waterloo, Ia.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Loane Engineering Co., Baltimore, Md.
Meier Electric and Machine Co., Indianapolis, Ind.

Micro-Westco, Inc., Bettendorf, Iowa.
Nelson Bros. Co., Saginaw, Mich.
Rumsey Pump Corp., Seneca Falls, N. Y.
Torrey Roller Bushing Works, Bath, Me.

Pumps, Drainage

(See "Pumps, Irrigation and Drainage")

Pumps, Dredging

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Aurora Pump Co., Aurora, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Morris Machine Works, Baldwinsville, N. Y.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Swaby Mfg. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Duplex

American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., Mount Gilead, O.
Ingersoll-Rand Co., New York, N. Y.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati, O.
Myers, F. E., & Bro. Co., The, Ashland, O.
National Transit Pump & Machine Co., Oil City, Pa.
Penberthy Injector Co., Detroit, Mich.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Fire

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Garrison Engineering Corp., Great Barrington, Mass.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Loane Engineering Co., Baltimore, Md. (Portable)
Manistee Iron Works. Co., Manistee, Mich.
Micro-Westco, Inc., Bettendorf, Iowa.
Morris Machine Works, Baldwinsville, N. Y.
National Transit Pump & Machine Co., Oil City, Pa.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Rumsey Pump Corp., Seneca Falls, N. Y.
Viking Pump Co., Cedar Falls, Iowa.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Gas Drip

American Steam Pump Co., Battle Creek, Mich.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Mueller Co., Decatur, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Rumsey Pump Corp., Seneca Falls, N. Y.

Pumps, Gasoline and Oil

Air-Way Pump Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Blackmer Pump Co., Grand Rapids, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Consolidated Instrument Co. of America, Inc., Baltimore, Md. (Electrical)
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.

De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kinney Manufacturing Co., Boston, Mass.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Mars Co., The, Aurora, Ill.
Mechanical Devices Co., Bloomington, Ill.
Micro-Westco, Inc., Bettendorf, Iowa.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Morrison Bros., Dubuque, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Perkins Marine Lamp & Hardware Corp., Brooklyn.
Romec Pump Co., Elyria, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Sutorbilt Corp., Los Angeles, Calif.
Swett, A. L., Iron Works, Medina, N. Y.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Gauge Testing

(See "Testers or Test Pumps, Gauge")

Pumps, Hand and Windmill, Force and Lift

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Coleman, Allan J., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Myers, F. E., & Bro. Co., The, Ashland, O.
Nelson Bros. Co., Saginaw, Mich.
Oberdorfer, M. L., Brass Co., Syracuse.

Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
Red Cross Mfg. Co., The, Bluffton, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Ross Mfg. Co., The, Cleveland, Ohio.
Rumsey Pump Corp., Seneca Falls, N. Y.
Viking Pump Co., Cedar Falls, Iowa.
Watson-Stillman Co., The, Roselle, N. J. (High pressure)

Pumps, Heavy Liquid

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Blackmer Pump Co., Grand Rapids, Mich.
Brown & Sharpe Mfg. Co., Providence, R. I.
Dean Brothers Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron Co., Los Angeles, Calif.
Kinney Manufacturing Co., Boston, Mass.
McGowan, John H., Co., The, Cincinnati.
Micro-Westco, Inc., Bettendorf, Iowa.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Morris Machine Works, Baldwinsville, N. Y.
National Transit Pump & Machine Co., Oil City, Pa.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Romec Pump Co., Elyria, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Hydraulic

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Engineering Co., Philadelphia, Pa.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Bernard, Charles A., Machine Co., Gardner, Mass.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Blackhawk Manufacturing Co., Milwaukee, Wis.
Brown & Sharpe Mfg. Co., Providence.
Cardwell Machine Co., The, Richmond, Va.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Henderer's, A. L., Sons, Wilmington, Del.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Keckley, O. C., Co., Chicago, Ill.
McGowan, John H., Co., The, Cincinnati.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
Viking Pump Co., Cedar Falls, Iowa.
Watson-Stillman Co., The, Roselle, N. J.
Worthington Pump and Machinery Corp., Harrison, N. J.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Hydro-Pneumatic

American Steam Pump Co., Battle Creek, Mich.
Decatur Pump Co., Decatur, Ill.
Deming Co., The, Salem, Ohio.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Micro-Westco, Inc., Bettendorf, Iowa.
Myers, F. E., & Bro. Co., The, Ashland, O.
Rumsey Pump Corp., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Irrigation and Drainage

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Coleman, Allan J., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Decatur Pump Co., Decatur, Ill.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati.
Manistee Iron Works Co., Manistee, Mich.
Micro-Westco, Inc., Bettendorf, Iowa.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Pomona Pump Co., Pomona, Calif.
Pulsometer Steam Pump Co., Irvington, N. J.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D. Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
Viking Pump Co., Cedar Falls, Iowa.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Jet, Steam or Water

American Injector Co., Detroit, Mich.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Hennebohle, Frank, Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
McGowan, John H., Co., The, Cincinnati.
Manistee Iron Works Co., Manistee, Mich.
Micro-Westco, Inc., Bettendorf, Iowa.
Ross Heater & Mfg. Co., Inc., Buffalo.
Schutte & Koerting Co., Philadelphia.
Tranter Mfg. Co., Pittsburgh, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.

Pumps, Lubricating and Cooling, for Machine Tools

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Boston Gear Works, Inc., North Quincy, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Kinney Manufacturing Co., Boston, Mass.
Manzel Brothers Co., Buffalo, N. Y.
Mechanical Devices Co., Bloomington, Ill.
Micro-Westco, Inc., Bettendorf, Iowa.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Romec Pump Co., Elyria, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Ross Mfg. Co., The, Cleveland, Ohio.
Rumsey Pump Corp., Seneca Falls, N. Y.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.

Pumps, Measuring

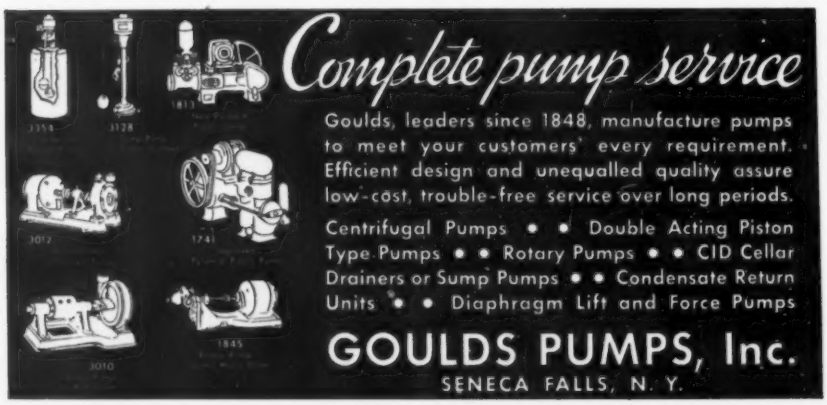
(See "Pumps, Gasoline and Oil")

Pumps, Oil, Lubricating

Alemite Corp., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bowser, S. F., and Co., Fort Wayne, Ind.
Blackmer Pump Co., Grand Rapids, Mich.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Brass Co., Detroit, Mich.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Essex Brass Corp., Detroit, Mich.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Kinney Manufacturing Co., Boston, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCullough Manufacturing Co., Minneapolis, Minn.
Madison-Kipp Corp., Madison, Wis.
Manzel Brothers Co., Buffalo, N. Y.
Mechanical Devices Co., Bloomington, Ill.
Micro-Westco, Inc., Bettendorf, Iowa.
Nugent, Wm. W., & Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Plews Oiler Co., Minneapolis, Minn.
Romec Pump Co., Elyria, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Worthington Pump and Machinery Corp., Harrison, N. J.

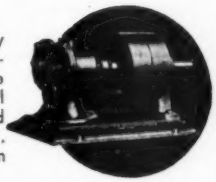
Pumps, Power

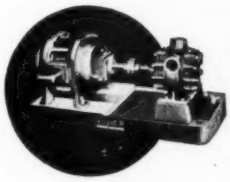
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buffalo Pumps, Inc., Buffalo, N. Y.
Cardwell Machine Co., The, Richmond, Va.
Construction Machinery Co., Waterloo, Ia.
Crane Co., Chicago, Ill.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Dean Brothers Co., Indianapolis, Ind.



SELL THE
Complete Line OF
ROPER PUMPS

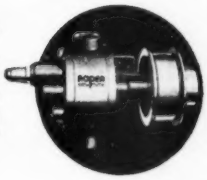
GENERAL USE
for handling any clean liquid in factories, cold storage plants, chemical plants, dyers and cleaners, etc. (Write for Bulletin MSR-3).

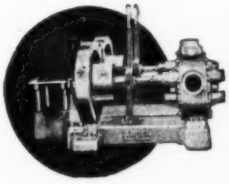




POWER TRANSMISSION
for hydraulic automobile lifts, elevators, presses, stokers, snow plows, etc. (Write for Bulletin MSR-5.)

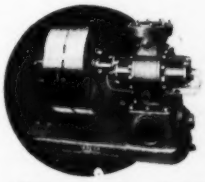
MACHINE TOOLS
for handling cutting compounds and lubricating liquids on metal working machines. (Write for Bulletin MSR-4.)





GASOLINE AND OILS
especially suited for transferring petroleum products in bulk stations, refineries, etc. (Write for Bulletin MSR-7.)

HAND TRANSFER
rotary gear or vane type, for handling thin or thick liquids. Attach to any type container. (Write for Bulletin MSR-2.)



HEAVY LIQUIDS
steam jacketed for handling asphaltum, creosote, glucose, molasses, tar and other viscous liquids. (Write for Bulletin MSR-9.)

GEO. D. ROPER CORP.
Rockford, Illinois

ROPER

De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
Kinney Manufacturing Co., Boston, Mass.
Loane Engineering Co., Baltimore, Md. (Portable)
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Meier Electric and Machine Co., Indianapolis, Ind.
Micro-Westco, Inc., Bettendorf, Iowa.
Myers, F. E., & Bro. Co., The, Ashland, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Power Manufacturing Co., The, Marion, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Rotary

Blackmer Pump Co., Grand Rapids, Mich.
Brown & Sharpe Mfg. Co., Providence, R. I.
Crane Co., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Fairbanks Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Kinney Manufacturing Co., Boston, Mass.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McGowan, John H., Co., The, Cincinnati.
Mechanical Devices Co., Bloomington, Ill.
Meier Electric and Machine Co., Indianapolis, Ind.
Micro-Westco, Inc., Bettendorf, Iowa.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Oberdorfer, M. L., Brass Co., Syracuse.
Romec Pump Co., Elyria, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Sutorbilt Corp., Los Angeles, Calif.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Screw Test

Dean Hill Pump Co., Anderson, Ind.
Morris Machine Works, Baldwinsville, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.

Pumps, Sewage

(See "Pumps, Bilge, Sewage and Sump")

Pumps, Simplex

American Steam Pump Co., Battle Creek, Mich.
Dean Brothers Co., Indianapolis, Ind.
Domestic Engine & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
McGowan, John H., Co., The, Cincinnati.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothers Mfg. Co., Louisville, Ky.
Worthington Pump and Machinery Corp., Harrison, N. J.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Sinking

American Steam Pump Co., Battle Creek, Mich.
Coleman, Allan J., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Manistee Iron Works Co., Manistee, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Spray

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Blackmer Pump Co., Grand Rapids, Mich.
Campbell-Hausfeld Co., The, Harrison, O.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.
Paasche Airbrush Co., Chicago, Ill.
Romec Pump Co., Elyria, Ohio.
Rumsey Pump Corp., Seneca Falls, N. Y.
Saylor-Beal Mfg. Co., Detroit, Mich.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Steam

American Steam Pump Co., Battle Creek, Mich.
Cardwell Machine Co., The, Richmond, Va.
Dean Brothers Co., Indianapolis, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll-Rand Co., New York, N. Y.
McGowan, John H., Co., The, Cincinnati.
Micro-Westco, Inc., Bettendorf, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
Nye Steam Pump & Machinery Co., Chicago, Ill.

Pulsometer Steam Pump Co., Irvington, N. J.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothers Mfg. Co., Louisville, Ky.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Sump

(See "Pumps, Bilge, Sewage and Sump," and "Drainers, Cellar or Pit")

Pumps, Tank

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Crane Co., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Domestic Engine & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
McGowan, John H., Co., The, Cincinnati, O.
Mars Co., The, Aurora, Ill.
Micro-Westco, Inc., Bettendorf, Iowa.
Myers, F. E., & Bro. Co., The, Ashland, O.
National Transit Pump & Machine Co., Oil City, Pa.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Transfer, Oil

Air-Way Pump Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Blackmer Pump Co., Grand Rapids, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chapin, R. E., Mfg. Works, The, Batavia, N. Y.
Dean Brothers Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kinney Manufacturing Co., Boston, Mass.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Micro-Westco, Inc., Bettendorf, Iowa.
Morrison Bros., Dubuque, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Romec Pump Co., Elyria, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swift Lubricator Co., Elmira, N. Y.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Triplex

Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Dudgeon, Richard, Inc., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Luitwieler Pumping Engine Co., Rochester, N. Y.
National Transit Pump & Machine Co., Oil City, Pa.
Romec Pump Co., Elyria, Ohio.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Vacuum

Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Baker-Hansen Mfg. Co., Alameda, Calif.
Chicago Pneumatic Tool Co., New York.
Coleman, Allan J., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Domestic Engine & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Eisler Electric Corp., Newark, N. J.
Electric Sprayit Co., The, Milwaukee, Wis.
Filer & Stowell Co., The, Milwaukee, Wis.
Gardner-Denver Co., Quincy, Ill.
Gast Mfg. Co., The, Bridgman, Mich.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Ingersoll-Rand Co., New York, N. Y.
Kinney Manufacturing Co., Boston, Mass.
Leiman Bros., Inc., Newark, N. J.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Miller Improved Gas Engine Co., Springfield, Ohio.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Quincy Compressor Co., Quincy, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Rumsey Pump Corp., Seneca Falls, N. Y.
Saylor-Beall Mfg. Co., Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.
Skidmore Corp., St. Joseph, Mich.
Sutorbilt Corp., Los Angeles, Calif.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Vogt Brothers Mfg. Co., Louisville, Ky.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Whitewash

Deming Co., The, Salem, Ohio.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.
Romec Pump Co., Elyria, Ohio.
Viking Pump Co. Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Windmill

(See "Pumps, Hand and Windmill, Force and Lift")

Punch and Shears Combined

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Gundlach, T. J., Machine Co., Belleville, Ill.
Kidder, J. F., Mfg. Co., Inc., Burlington, Vt.
Peck, Stow & Wilcox Co., Southington, Conn.
Pels, Henry, & Co., Inc., New York, N. Y.
Plymouth Foundry & Machine Co., Plymouth, Wis.
Rock River Machine Co., Janesville, Wis.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Ryerson, Joseph T., & Sons, Chicago, Ill.

Punches, Belt

American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Greene, Tweed & Co., New York, N. Y.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Johnson, William, Inc., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Manufacturers' Belt Hook Co., Chicago.
Millers Falls Co., Greenfield, Mass.
Schieren, Chas. A., Co., New York, N. Y.
Schollhorn, Wm., Co., The, New Haven, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Victor Balata & Textile Belting Co., New York, N. Y.

Punches, Center

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Billings & Spencer Co., The, Hartford, Conn.

AMERICAN SWISS
PUNCHES
A COMPLETE LINE
Pin, Center, Prick, Solid Metal and Arch Punches
ARCH PUNCHES

American Swiss File and Tool Co.
ELIZABETH, N. J.

Bonney Forge & Tool Works, Allentown, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Johnson, William, Inc., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Lufkin Rule Co., The, Saginaw, Mich.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vichek Tool Co., The, Cleveland, Ohio.

Punches, Drift

American Swiss File & Tool Co., Elizabeth, N. J.
Cincinnati Tool Co., The, Cincinnati, O.
Crescent Tool Co., Jamestown, N. Y.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.
Vichek Tool Co., The, Cleveland, Ohio.

Punches, Hand Power

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
G. D. S. Shearing & Punching Machine Co., Inc., New York, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Gundlach, T. J., Machine Co., Belleville, Ill.
Parker-Kalon Corp., New York, N. Y.
Pels, Henry, & Co., Inc., New York, N. Y.
Plymouth Foundry & Machine Co., Plymouth, Wis.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Chicago, Ill.
Scully-Jones & Co., Chicago, Ill.
Vichek Tool Co., The, Cleveland, Ohio.
Whitney Metal Tool Co., Rockford, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Wiedemann Machine Co., Philadelphia, Pa.

WHITNEY

LEVER PUNCHES

No. 1 PUNCH

Length — 34 inches. Capacity — ⅜-inch hole through ¼-inch iron. Punches and dies in sizes from ⅛ to 9/16 by 64ths. Weight—22 lbs.

No. 2 PUNCH

Length — 23 inches. Capacity — 5/16-inch hole through ¼-inch iron. Punches and dies in sizes 3/32-inch to ½-inch by 64ths. Weight—14 lbs.

CHANNEL IRON PUNCH

Companion to No. 2 Punch. Every part of the two Punches interchangeable, including punches and dies. Capacity — ¼-inch hole through ¼-inch iron. Weight—16½ lbs.

No. 4B PUNCH

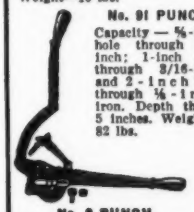
Length—8½ inches. Capacity ¼-inch through 16 gauge. Depth Throat—2 inches. Weight — 3 lbs. Punches and Dies—1/16" to 9/32" by 64ths.

No. 6 PUNCH

Length — 26½ inches. Capacity — ¼-inch hole through 3/16-inch iron; especially adapted for button punching or templet work. Punches and dies ⅛" to 9/32" by 32nds. Weight—10 lbs.

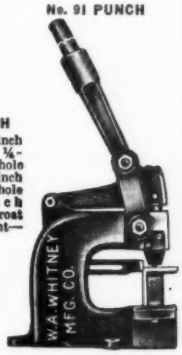
Extra punches and dies for Whitney Punches.

No. 91 PUNCH



Capacity — ⅝-inch hole through ¼-inch; 1-inch hole through 3/16-inch and 2-inch hole through ⅛-inch iron. Depth throat 5 inches. Weight—82 lbs.

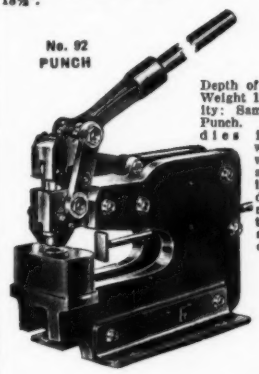
No. 91 PUNCH



No. 8 PUNCH

Capacity—¼" through ⅛" iron. Punches and dies 1/16" to 7/16" by 64ths. Weight 7½ lbs. Length 18½".

No. 92 PUNCH



Depth of throat 10 in. Weight 165 lbs. Capacity: Same as No. 91 Punch. Punches and dies interchangeable with No. 91. A valuable accessory is a notching punch and die that will notch angles up to 1½x1½x⅛" and cut a 90-deg. notch.

TRADE MARK WAW REGISTERED

W. A. Whitney Mfg. Co.

636 Race St. Rockford, Ill.

Punches, Hollow

American Swiss File & Tool Co., Elizabeth, N. J.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Johnson, William, Inc., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Manufacturers' Belt Hook Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Metal Tool Co., Rockford, Ill.

Punches, Lining-up

Bonney Forge & Tool Works, Allentown, Pa.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Kraeuter & Co., Inc., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, New Britain, Conn.

Punches, Pin

American Swiss File & Tool Co., Elizabeth, N. J.
Bonney Forge & Tool Works, Allentown, Pa.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Punches, Prick

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Johnson, William, Inc., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.
Vichek Tool Co., The, Cleveland, Ohio.

Punches, Railroad Track

Dudgeon, Richard, Inc., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Marchant, Geo. F., Co., Chicago.
Rock River Machine Co., Janesville, Wis.
Whitney, W. A., Mfg. Co., Rockford, Ill.

Punches, Saddlers'

American Swiss File & Tool Co., Elizabeth, N. J.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greene, Tweed & Co., New York, N. Y.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Johnson, William, Inc., Newark, N. J.
Manufacturers' Belt Hook Co., Chicago.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.

Punches, Screw

American Swiss File & Tool Co., Elizabeth, N. J.
Dudgeon, Richard, Inc., New York, N. Y.
Henderer's, A. L., Sons, Wilmington, Del.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Marchant, Geo. F., Co., Chicago, Ill.
Rock River Machine Co., Janesville, Wis.
Scully-Jones & Co., Tool Division, Chicago.
Whitney Metal Tool Co., Rockford, Ill.

Punches, Solid

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Johnson, William, Inc., Newark, N. J.
Kidder, J. F., Mfg. Co., Inc., Burlington, Vt.
Kraeuter & Co., Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Scully-Jones & Co., Tool Division, Chicago.
Vichek Tool Co., The, Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.
Whitney Metal Tool Co., Rockford, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.

Punching and Shearing Machines

(See "Machines, Punching and Shearing")

Purifiers, Feed Water

(See "Filters and Purifiers, Feed Water")

Purifiers, Steam

Blaw-Knox Co., Pittsburgh, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Pushers, Car

(See "Car Movers")

Pushers, Pipe

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Farnan Brass Works Co., The, Cleveland, Ohio.
Giant Mfg. Co., Council Bluffs, Iowa.
Greenlee Bros. & Co., Rockford, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Putty

Colebrook's, W. H., Sons, Inc., Syracuse, N. Y. (Stove and boiler)
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio. (Rubber)
Sauereisen Cements Co., Pittsburgh, Pa.
Wills Products Co., The, New York, N. Y.

Pyrometers

Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Moeller Instrument Co., Inc., Brooklyn.
Pyrometer Instrument Co., The, New York, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Thwing Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.

Quills or Hollow Shafts, Transmission

Allis-Chalmers Manufacturing Co., West Allis, Wis.

Dodge Manufacturing Corp., Mishawaka, Ind.
Dumore Co., The, Racine, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Racks, Band Saw

Swett, Frank W., & Son, Chicago, Ill.

Racks, Barrel

Barrett-Cravens Co., Chicago, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Ingalls Iron Works Co., The, Birmingham, Ala.
Lewis-Shepard Co., Boston, Mass.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Schwenk Safety Device Corp., New York, N. Y. (Also carboy stands)
West Bend Equipment Corp., West Bend, Wis.

Racks, Gear and Pinion

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Foote Gear Works, Inc., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Ohio Forge & Machine Corp., Cleveland, O.
Pyott Foundry & Machine Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Steel Specialty Co., Beaver Falls, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Racks, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
C-O-Two Fire Equipment Co., Newark, N. J.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Harker Mfg. Co., Cincinnati, Ohio.
Jiffy Fire Hose Rack Co., New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Brass Foundry Co., New York.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Co., Philadelphia, Pa. (Fire)

Racks—Pipe, Shafting, Stock, Etc.

American Foundry & Mfg. Co., St. Louis.
Barrett-Cravens Co., Chicago, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Brown Engineering Co., Reading, Pa.
Illinois Gear & Machine Co., Chicago, Ill. (Cut gear racks)
Lewis-Shepard Co., Boston, Mass.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.

Racks, Screw Machine

Brown Engineering Co., Reading, Pa.
Cullman Wheel Co., Chicago, Ill.
Foote Gear Works, Inc., Cicero, Ill.

Racks and Stands, Tool

All-Steel-Equip Co., Inc., Aurora, Ill.
All Steel Welded Truck Corp., Rockford, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Bros. Tool Co., Chicago, Ill.
Aurora Equipment Co., Aurora, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Cleveland Wire Spring Co., The, Cleveland, Ohio.
G. M. Laboratories, Inc., Chicago, Ill. (Soldering iron stands)
Lewis-Shepard Co., Boston, Mass.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.

Rags, Wiping

(See "Cloths, Wiping, Machine")

Railings and Fittings, Brass

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Farnan Brass Works Co., The, Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Messmer Brass Co., St. Louis, Mo.
Midland Mfg. Co., Ft. Worth, Tex.
Newman Bros., Inc., Norwood, Cincinnati.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Walworth Co., New York, N. Y.

Railings, Iron and Steel

Buffalo Wire Works Co., Inc., Buffalo.
Conco Engineering Works, Mendota, Ill.
Clopp, Geo. B., Iron Works, Philadelphia.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fabricated Steel Products Co., The, Wheeling, W. Va.
Grinnell Co., Inc., Providence, R. I.
Ingalls Iron Works Co., The, Birmingham, Ala.
Littleford Bros., Cincinnati, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio. (Iron only)
Walworth Co., New York, N. Y.

Rails and Accessories, Industrial

American Car & Foundry Co., New York.
Bethlehem Steel Co., Bethlehem, Pa.
Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Chase Foundry & Mfg. Co., Columbus, O.
Inland Steel Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Ryerson, Joseph T., & Son, Chicago, Ill.

Rails, Guide, Elevator

Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Standard Steel Specialty Co., Beaver Falls, Pa.

Rakes

(See "Hoes, Rakes and Forks")

Rammers, Sand

Chicago Pneumatic Tool Co., New York.
Hellenberg, J. B., Co., Inc., The, Coldwater, Mich.
Independent Pneumatic Tool Co., Chicago.

Rams, Hydraulic

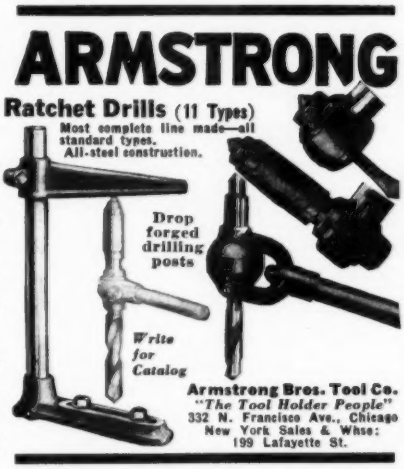
Blackhawk Mfg. Co., Milwaukee, Wis.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Rumsey Pump Corp., Seneca Falls, N. Y.

Rasps

Atkins, E. C., and Co., Indianapolis, Ind.
Carson-Newton Co., Newark, N. J.
Cleveland File Co., The, Cleveland, O.
Delta File Works, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ford, M. A., Mfg. Co., Davenport, Ia. (Rotary)
Hayes File Co., Detroit, Mich.
Heller Brothers Co., Newark, N. J.
Nicholson File Co., Providence, R. I.
Simonds Saw and Steel Co., Fitchburg, Mass.

Ratchets and Ratchet Drills

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.



Cleveland Twist Drill Co., The, Cleveland.
Foote Gear Works, Inc., Cicero, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Adjustable

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass. (Automobile)
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Bibb and Valve Seat

Alvord-Polk Tool Co., Millersburg, Pa.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Crane Co., Chicago, Ill.
Gairing Tool Co., The, Detroit, Mich.
Johnson, William, Inc., Newark, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.

Reamers, Bit Brace and Hand

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.

Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
National Twist Drill & Tool Co., Detroit, Mich.
Nye Tool & Machine Works, The, Chicago.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Threadwell Tap & Die Co., Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Bridge and Boiler

Alvord-Polk Tool Co., Millersburg, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Burring

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Manufacturing Co., Bridgeport, Conn.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.

Reamers, Car

Alvord-Polk Tool Co., Millersburg, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Center

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Chucking

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gammons-Holman Co., The, Manchester, Conn.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Tool Co., The, Cleveland, Ohio.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Cylinder

Barber-Colman Co., Rockford, Ill.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Kelly Reamer Co., Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.
Stevens, Walden, Inc., Worcester, Mass.

Reamers, Diamond

(See "Tools, Diamond Pointed")

Reamers, Electric

Alvord-Polk Tool Co., Millersburg, Pa.
Chicago Pneumatic Tool Co., New York.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Pratt & Whitney Co., Hartford, Conn.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Reamers, Expanding

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Chadwick & Trefethen, Portsmouth, N. H.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Scully Steel & Iron Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Union Twist Drill Co., Athol, Mass.
U. S. Reamer & Tool Corp., Los Angeles.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Expansion

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gammons-Holman Co., The, Manchester, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Scully Steel & Iron Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass. (Automobile)
Union Twist Drill Co., Athol, Mass.
U. S. Reamer & Tool Corp., Los Angeles, Calif.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Locomotive

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.

Chicago Pneumatic Tool Co., New York.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Pipe

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Nye Tool & Machine Works, The, Chicago.
Oster Manufacturing Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Union Twist Drill Co., Athol, Mass.
Walworth Co., New York, N. Y.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Rose Chucking

Cleveland Twist Drill Co., The, Cleveland, Ohio.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Standard Tool Co., The, Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.

Reamers, Shell

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Glenzer, J. C., Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.

Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers—Spiral Fluted, Rose Chucking, Rose Shell

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Chadwick & Trefethen, Portsmouth, N. H. (Spiral fluted only)
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gammons-Holman Co., The, Manchester, Conn.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Tool Co., The, Cleveland, Ohio.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Square

Alvord-Polk Tool Co., Millersburg, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Tuck Mfg. Co., Brockton, Mass.
Union Twist Drill Co., Athol, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.

Reamers, Taper and Taper Pin

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gammons-Holman Co., The, Manchester, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Threadwell Tap & Die Co., Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Valve Reseating

(See "Reseating Tools, Valve and Bibb")

Reamers, Woodworking

Independent Pneumatic Tool Co., Chicago.

Reaming Machines

(See "Machines, Reaming")

Receivers, Air

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Air Compressor Corp., Brooklyn.
Baker-Hansen Mfg. Co., Alameda, Calif.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Ingalls Iron Works Co., The, Birmingham, Ala.
Ingersoll-Rand Co., New York, N. Y.
Littleford Bros., Cincinnati, Ohio.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Perkins Marine Lamp & Hardware Corp., Brooklyn.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simplex Spray Equipment Co., Chicago.
Worthington Pump and Machinery Corp., Harrison, N. J.

Receivers, Ammonia

Brunswick-Kroeschell Co., New Brunswick, N. J.
Carbondale Machine Corp., Harrison, N. J.
Vogt, Henry, Machine Co., Louisville, Ky.

Receivers, Condensation

Dean Brothers Co., Indianapolis, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Nason Manufacturing Co., New York.
Sarco Co., Inc., New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Receptacles, Refuse

(See "Cans or Receptacles, Refuse")

Recharges, Dry, Fire Extinguisher

American-LaFrance and Foamite Corp., Elmira, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Recorders and Indicators, Combustion and Flue Gas, or Carbon Dioxide

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Leeds & Northrup Co., Philadelphia, Pa.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York, N. Y.
McNeill, T. W., Engineering Equipment Co., Chicago, Ill.
Permutit Co., The, New York, N. Y.
Pyrometer Instrument Co., The, New York, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Uehling Instrument Co., Paterson, N. J.

Recorders, Draft

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Mason Regulator Co., Boston, Mass.
Republic Flow Meters Co., Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Recorders, Electrical

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Cutler-Hammer, Inc., Milwaukee, Wis.
Detex Watchclock Corp., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
National Dry Kiln Co., Indianapolis, Ind. (For humidity and temperature)
Uehling Instrument Co., Paterson, N. J.

Recorders, Liquid Level

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Gurley, W. & L. E., Troy, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.

Recorders, Operation

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn.
Thwing Instrument Co., Philadelphia, Pa.
Veeder-Root, Inc., Hartford, Conn.

Recorders, Revolution

(See "Counters, Revolution" and "Tachometers")

Recorders and Indicators, Specific Gravity

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Permutit Co., The, New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.

Recorders, Temperature

(See "Thermometers, Recording")

Recorders, Watchmen's

(See "Clocks, Watchmen's")

Recorders, Water Flow

Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Gurley, W. & L. E., Troy, N. Y.
Mason Regulator Co., Boston, Mass.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Republic Flow Meters Co., Chicago, Ill.

Reducers, Fuse

Ideal Commutator Dresser Co., Sycamore, Ill.

Reducers, Hose

(See "Fittings, Hose")

Reducers, Pipe

(See "Fittings, Pipe")

Reducers, Speed

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Cullman Wheel Co., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Diehl Mfg. Co., Elizabethport, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Driscoll Drive Corp., New York.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falk Corp., The, Milwaukee, Wis.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Horsburgh & Scott Co., The, Cleveland, O.
Huron Industries, Inc., Alpena, Mich.
Illinois Gear & Machine Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Keystone-Hindley Gear Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Master Electric Co., Dayton, Ohio.
Moore Steam Turbine Corp., Wellsville, N. Y.
Morse Chain Co., Ithaca, N. Y.
Ohio Forge & Machine Corp., Cleveland, O.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.

Bond
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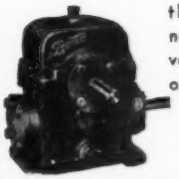
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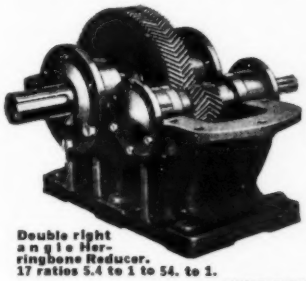

Double right angle Herringbone Reducer. 17 ratios 5.4 to 1 to 54. to 1.

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Brad Foote Line Speed Reducers are made to accommodate all types of installation. Supplied with either A.C. or D.C. motor. Herringbone type in 83 ratios, ¼ HP. to 475 HP; WORM TYPE from ¼ HP. to 7½ HP. Single Reduction—ratios 8 to 1 up to 60 to 1. Double in larger ratios. Higher HP. if desired.
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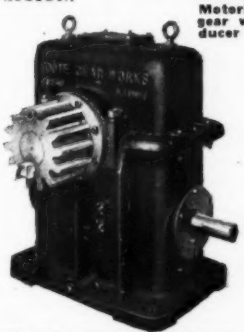
Motorized double worm gear variable speed reducer 7-20-D.



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Stimmel Winch Co., Long Island City, N. Y.
Swayne-Robinson & Co., Richmond, Ind.

Reels, Belting

Reichel & Drews, Chicago, Ill.

Reels, Electric Extension

Appleton Electric Co., Chicago, Ill. (Spring driven)
Cincinnati Specialty Mfg. Co., Inc., The, Cincinnati, Ohio. (Automatic)
Maris Brothers, Inc., Philadelphia, Pa.

Reels, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
C-O-Two Fire Equipment Co., Newark, N.J.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Jiffy Fire Hose Rack Co., New York, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Wirt & Knox Co., Philadelphia, Pa. (Fire and garden)

Reels, Pay Out

Leach Co., Oshkosh, Wis.
Maris Brothers, Inc., Philadelphia, Pa.
Wittek Mfg. Co., Chicago, Ill.

Reels, Wire, Steel

American Pulley Co., The, Philadelphia.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Leach Co., Oshkosh, Wis.
Newhall Chain Forge & Iron Co., New York.
Truscon Steel Co., Youngstown, Ohio.
U. S. Tool Company, Inc., Ampere, N. J.

Refacers, Valve, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Millers Falls Co., Greenfield, Mass.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Refractories

(See also "Cement, Fire Brick, High Temperature, Refractory," etc.; "Brick, Fire," etc.; "Fire Clay," "Insulation, High Temperature Block, Plastic Furnace," etc.; "Guns, Refractory Application," etc.)

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Barber Asphalt Co., The, Philadelphia, Pa.
Botfield Refractories Co., Philadelphia, Pa.
Campbell-Hausfeld Co., The, Harrison, Ohio.
Carborundum Co., Niagara Falls, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Colebrook's, W. H., Sons, Inc., Syracuse, N. Y.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Refractories Co., Philadelphia, Pa.
Green, A. P., Fire Brick Co., Mexico, Mo.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Huyette, Paul B., Co., Inc., Philadelphia, Pa.
Johns-Manville, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Key Co., East St. Louis, Ill.
Keystone Refractories Co., New York, N. Y.
Lavino, E. J., & Co., Philadelphia, Pa.
Lyon, Conklin & Co., Inc., Baltimore, Md.
McLeod & Henry Co., Troy, N. Y.
Marion Machine, Foundry & Supply Co., Marion, Ind.
National Asbestos Mfg. Co., The, Jersey City, N. J.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
North American Refractories Co., Cleveland, Ohio.
Norton Co., Worcester, Mass.
Quigley Company, Inc., New York, N. Y.
R. S. Products Corp., Philadelphia, Pa.

(Continued on page 266)

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(Continued from page 265)

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Carbondale Machine Corp., Harrison, N. J.
Champion Blower & Forge Co., Lancaster, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Tubing & Braiding Co., Chicago.
Clark, James, Jr., Electric Co., Louisville, Ky.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Commonwealth Brass Corp., Detroit, Mich.
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Crane Packing Co., Chicago, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
Dayton Rubber Mfg. Co., Dayton, Ohio.
Detroit Lubricator Co., Detroit, Mich.
Dockson, C. H., Co., Detroit, Mich.
Economy Baler Co., Ann Arbor, Mich.
Electric Sprayit Co., South Bend, Ind.
Faultless Caster Co., Evansville, Ind.
Felt Products Mfg. Co., Chicago, Ill.
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Geuder, Paeschke & Frey Co., Milwaukee.
Gilmer, L. H., Co., Philadelphia, Pa.
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Harrington Co., Philadelphia, Pa.
Harris, Arthur, & Co., Chicago, Ill.
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Johns-Manville, New York.
Johnson Bronze Co., New Castle, Pa.
Kerotest Mfg. Co., Pittsburgh, Pa.
Lidseen, Gustave, Inc., Chicago, Ill.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
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Pheoll Mfg. Co., Chicago, Ill.
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Scovill Mfg. Co., Waterbury, Conn.
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Yale & Towne Mfg. Co., The, Philadelphia, Pa.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

Regulators, Damper, for Power Boilers

Brown Instrument Co., Philadelphia, Pa.
Burrows, F. A., Mfg. Co., York, Pa.
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Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Murray, William H., Brooklyn, N. Y.
Sarco Co., Inc., New York, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn.
Watts Regulator Co., Lawrence, Mass.

Regulators, Draft

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Gorton Heating Corp., Crawford, N. Y.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Mason Regulator Co., Boston, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Murray, William H., Brooklyn, N. Y.
Parker-Kalon Corp., New York, N. Y.
Tillery's Little Janitor Clock Co., Newark, N. J.

Regulators, Controllers or Governors—Fan Engine

Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Schade Valve Mfg. Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Regulators, Feed Water

Bordo, L. J., Co., Inc., Glenside, Pa.
Brown Instrument Co., Philadelphia, Pa.
Burrows, F. A., Mfg. Co., York, Pa.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Syracuse Steam Generator, Inc., Syracuse, N. Y.
Watts Regulator Co., Lawrence, Mass.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.

Regulators, Flow

Bastian-Blessing Co., Chicago, Ill.
Brown Instrument Co., Philadelphia, Pa.
Davis Regulator Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Standard Oil Co. of New York, The, New York, N. Y.

Regulators, Gas

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown Instrument Co., Philadelphia, Pa.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Harris Calorific Co., The, Cleveland, Ohio.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leiman Bros., Inc., Newark, N. J.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Syracuse Steam Generator, Inc., Syracuse, N. Y.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Regulators, Humidity

Bishop & Babcock Sales Co., Cleveland, O.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Foxboro Co., The, Foxboro, Mass.
Klipfel Manufacturing Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Parks-Cramer Co., Fitchburg, Mass.
Powers Regulator Co., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Regulators, Oil Burner

Bastian-Blessing Co., Chicago, Ill.
Bristol Co., The, Waterbury, Conn.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.

Regulators—Oxygen, Acetylene and Hydrogen

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Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Dockson, C. H., Co., Detroit, Mich.
Harris Calorific Co., The, Cleveland, O.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.

Milburn, Alexander, Co., The, Baltimore, Md.
Modern Engineering Co., St. Louis, Mo.
Pittsburgh Thermoline Co., Pittsburgh, Pa.
Sight-Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Regulators, Pressure, Air

Bastian-Blessing Co., Chicago, Ill.
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Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
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Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Furnas Electric Co., West Allis, Wis.
Gardner-Denver Co., Quincy, Ill.
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Schade Valve Mfg. Co., Philadelphia, Pa.
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Weldit Acetylene Co., Detroit, Mich.

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Bristol Co., The, Waterbury, Conn.
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Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
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Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
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Murray, William H., Brooklyn, N. Y.
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Swartwout Co., The, Cleveland, Ohio.
Tagliabue C. J., Mfg. Co., Brooklyn, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Regulators, Pressure, Water

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Furnas Electric Co., West Allis, Wis.
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Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Mueller Co., Decatur, Ill.
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Powers Regulator Co., The, Chicago, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Regulators, Pump

(See "Governors or Regulators, Pump")

Regulators, Stoker

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Foster Engineering Co., Newark, N. J.
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Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Murray, William H., Brooklyn, N. Y.

Regulators, Tank

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Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
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Powers Regulator Co., The, Chicago, Ill.
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Watts Regulator Co., Lawrence, Mass.

Regulators, Temperature

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Brown Instrument Co., Philadelphia, Pa.
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Foxboro Co., The, Foxboro, Mass.
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Klipfel Manufacturing Co., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
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Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

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Klipfel Manufacturing Co., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
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Suitable for steam, water, oil and gas, from 0° to 300° F, and can also be had in the "reverse acting" type, to open with rise of temperature.

A 6-ft. connecting tubing between thermostat and valve is furnished with regulator, but when needed, longer tubings are supplied at a slight additional cost.

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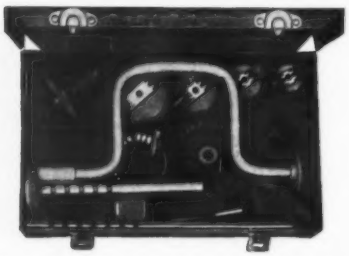

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Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.

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Safety Equipment Service Co., The, Cleveland, Ohio.
Safety Fire Extinguisher Co., The, New York, N. Y.
Willson Products, Inc., Reading, Pa.

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Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Watt's, John M., Sons, Philadelphia, Pa.

Rings, Packing, Felt
Booth Felt Co., Inc., Brooklyn, N. Y.
Field, R. B., & Co., Worcester, Mass.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Manufacturing & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.

Rings, Pipe Hanging
Chicago Expansion Bolt Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Walworth Co., New York, N. Y.

Rings, Shafting, Leather
Bond, Charles, Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolton, Inc., Newark, N. J.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Moloney Belting Co., Chicago, Ill.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.

Rings and Wedges, Tool Post
Williams, J. H., & Co., New York. N. Y.

Rivet Sets
(See "Sets, Rivet")

Riveters, Belt or Motor Driven
Buffalo Forge Co., Buffalo, N. Y.
Rock River Machine Co., Janesville, Wis.

Riveters, Electric
Independent Pneumatic Tool Co., Chicago.
Rock River Machine Co., Janesville, Wis.

Riveters, Hydraulic
Bethlehem Steel Co., Bethlehem, Pa.
Hannifin Manufacturing Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Millers Falls Co., Greenfield, Mass.
Watson-Stillman Co., The, Roselle, N. J.

Riveters, Pneumatic
Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Hannifin Mfg. Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.

Riveters, Stake
Rock River Machine Co., Janesville, Wis.

Rivets, Boiler and Structural
Atlas Bolt & Screw Co., The, Cleveland.
Bethlehem Steel Co., Bethlehem, Pa.
Lamson & Sessions Co., The, Cleveland.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rivets and Burrs, Brass and Copper
American Brass Co., The American Metal Hose Branch, Waterbury, Conn.
Atlas Tack Corp., Fairhaven, Mass.
Bay State Stamping Co., Worcester, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Massachusetts Machine Shop, Inc., Boston, Mass.
Master Products Co., The, Cleveland, Ohio.
Multi-Seal Manufacturing Co., Chicago, Ill.
National Screw & Mfg. Co., The, Cleveland, Ohio.
New England Screw Co., Boston, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Revere Copper and Brass, Inc., Rome Division, Rome, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
U. S. Indestructible Gasket Co., Brooklyn.
Wrought Washer Mfg. Co., Milwaukee.

Rivets, Hame
Atlas Bolt & Screw Co., The, Cleveland.
Atlas Tack Corp., Fairhaven, Mass.
Berry Brothers, Columbus, Ohio.
Clark Bros. Bolt Co., Milldale, Conn.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rivets, Steel or Iron, Small
Atlas Bolt & Screw Co., The, Cleveland.
Atlas Tack Corp., Fairhaven, Mass.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.

Clark Bros. Bolt Co., Milldale, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Lamson & Sessions Co., The, Cleveland.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rivets, Tinners'

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Atlas Bolt & Screw Co., The, Cleveland.
Atlas Tack Corp., Fairhaven, Mass.
Berry Brothers, Columbus, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Everitt Co., The, Boston, Mass.
Lamson & Sessions Co., The, Cleveland.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.

Rivets, Tong

Atlas Bolt & Screw Co., The, Cleveland.
Heller Brothers Co., Newark, N. J.
Pittsburgh Screw & Bolt Corp., Pittsburgh.

Rivets, Tubular and Split

Atlas Tack Corp., Fairhaven, Mass. (Tubular only)
Chase Brass & Copper Co., Waterbury, Conn.
Continental Screw Co., New Bedford, Mass.
Crescent Belt Fastener Co., New York.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Johns-Manville, New York, N. Y.
Manufacturers' Belt Hook Co., Chicago.
Miley, L. J., Co., Inc., Chicago, Ill.
National Screw & Mfg. Co., The, Cleveland.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Standard Belt Fastener Co., The, Unionville, Conn.

Rock Wool

(See "Wool, Mineral")

Rod Ends

(See "Ends, Rod")

Rods — Brass, Bronze and Copper

(See "Brass Rods," "Bronze Rods" and "Copper Rods")

Rods, Drill

Crucible Steel Co. of America, New York, N. Y.
Frasse, Peter A., & Co., Inc., New York.
Ingersoll-Rand Co., New York, N. Y.
Kidd Drawn Steel Co., Aliquippa, Pa.
Ludlum Steel Co., Watervliet, N. Y.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Flue Cleaner

Ryerson, Joseph T., & Son, Inc., Chicago.

Rods, Hydrant

M & H Valve & Fittings Co., Anniston, Ala.

Rods, Pipe

Mark, Clayton, & Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Piston

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Crucible Steel Co. of America, New York, N. Y.
Frederick Iron & Steel Co., The, Frederick, Md.
Jones & Laughlin Steel Corp., Pittsburgh.
Leard, William, Co., Inc., The, New Brighton, Pa.
Ohio Forge & Machine Corp., Cleveland, O.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Pump, Deep Well

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Crucible Steel Co. of America, New York, N. Y.
Dean-Hill Pump Co., Anderson, Ind.
Deming Co., The, Salem, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Mark, Clayton, & Co., Chicago, Ill.
Roebling's, John A., Sons Co., Trenton, N. J.

Rods, Sewer Cleaning

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Newhall Chain Forge & Iron Co., New York.
Rapid Spring Co., The, Pittsburgh, Pa.
Ruleta Co., Inc., The, New York, N. Y. (Jewelers')

Rods, Stove

American Screw Co., Providence, R. I.
Berry Brothers, Columbus, Ohio.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Screw Co., New Bedford, Mass.
National Screw & Mfg. Co., The, Cleveland.
Pheoll Mfg. Co., Chicago, Ill.

Rods, Threaded

Acme Machine Products Co., Muncie, Ind.
American Car and Foundry Co., New York.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Clark Bros. Bolt Co., Milldale, Conn.
Conco Engineering Works, Mendota, Ill.
Crucible Steel Co. of America, New York, N. Y.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Frederick Iron & Steel Co., The, Frederick, Md.
Grinnell Co., Inc., Providence, R. I.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Neely Nut & Bolt Co., Pittsburgh.
New England Screw Co., Boston, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Smith, Thomas, Co., Worcester, Mass.
Star Expansion Bolt Co., New York, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rods, Tie

American Car and Foundry Co., New York.
American Steel & Wire Co., Chicago, Ill.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Clark Bros. Bolt Co., Milldale, Conn.
Conco Engineering Works, Mendota, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Inland Steel Co., Chicago, Ill.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh.
Newhall Chain Forge & Iron Co., New York.
Ohio Forge & Machine Corp., Cleveland, O.
Republic Steel Corp., Cleveland, Ohio.
Smith, Thomas, Co., Worcester, Mass.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Welding

Air Reduction Sales Co., New York, N. Y.
American Chain Co., Inc., Bridgeport, Conn.
American Steel & Wire Co., Chicago, Ill.
Ampco Metal, Inc., Milwaukee, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Bastian-Blessing Co., Chicago, Ill.
Bristol Brass Corp., The, Bristol, Conn.
Central Steel & Wire Co., Chicago, Ill.
Chase Brass & Copper Co., Waterbury, Conn.
Colmonoy, Inc., Los Nietos, Calif.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Consolidated Metals Corp., Detroit, Mich.

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All Sizes
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Dockson, C. H., Co., Detroit, Mich.
Frasse, Peter A., & Co., Inc., New York.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn
Harnischfeger Corp., Milwaukee, Wis.
Imperial Brass Mfg. Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lincoln Electric Co., The, Cleveland, O.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Modern Engineering Co., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
Page Steel & Wire Co., and Wire Division of American Chain Co., Inc., Monessen, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.
Simplex Wire & Cable Co., Boston, Mass.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Una Welding, Inc., Cleveland, Ohio.
Union Drawn Steel Co., (Subsidiary of Republic Steel Corp.), Massillon, Ohio.
Weldit Acetylene Co., Detroit, Mich.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Wire, Steel

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Coleman, Allan J., Chicago, Ill.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Crucible Steel Co. of America, New York, N. Y.
Jones & Laughlin Steel Corp., Pittsburgh.
National Screw & Mfg. Co., The, Cleveland.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Smith, Thomas, Co., Worcester, Mass.
Truscon Steel Co., Youngstown, Ohio.
Union Drawn Steel Co. (Subsidiary of Republic Steel Corp.), Massillon, Ohio.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods and Wire, Welding

(See "Wire and Rods, Welding")

Rollers, Boiler Tube, Locomotive

Dudgeon, Richard, Inc., New York, N. Y.
Key Co., East St. Louis, Ill.
Leard, William, Co., Inc., The, New Brighton, Pa.
Scully-Jones & Co., Tool Division, Chicago, Ill.

Rollers, Lumber

Filer & Stowell Co., The, Milwaukee, Wis.
Leach Co., Oshkosh, Wis.
Lignum-Vitae Products Corp., Jersey City, N. J.
Stimmel Winch Co., Long Island City, N. Y.

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S.K.F. Industries, Inc., Philadelphia, Pa.

Rollers, Pipe

Armstrong Manufacturing Co., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Newbury Manufacturing Co., Monroe, N. Y.
Walworth Co., New York, N. Y.

Rollers, Steel

Norma-Hoffmann Bearings Corp., Stamford, Conn.
Roller Bearing Company of America, Trenton, N. J.
S.K.F. Industries, Inc., Philadelphia, Pa.

Rolls, Conveyor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia.
Buffalo Forge Co., Buffalo, N. Y.
Chain Belt Co., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis.
Filer & Stowell Co., The, Milwaukee, Wis.
Leard, William, Co., Inc., The, New Brighton, Pa.
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Shafer Bearing Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Rolls, Pipe Hanger

Fee & Mason Mfg. Co., Inc., New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.

Rolls — Wood, Metal and Rubber

Allis-Chalmers Manufacturing Co., West Allis, Wis. (Crushing, etc.)
Edwards Manufacturing Co., Inc., Cincinnati, Ohio. (Iron and steel)
Filer & Stowell Co., The, Milwaukee, Wis.
Goodrich, B. F., Co., The, Akron, Ohio.
Lignum-Vitae Products Corp., Jersey City, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mathews Conveyor Co., Ellwood City, Pa.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich. (Granite conveyor)
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Roofing, Asphalt

Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Flexrock Co., Philadelphia, Pa.
Garland Co., The, Cleveland, Ohio.
Johns-Manville, New York, N. Y.
National Asbestos Mfg. Co., Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Paraffine Companies, Inc., The, San Francisco, Calif.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.
Wills Products Co., The, New York, N. Y.

Roofing, Miscellaneous

Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Blaw-Knox Co., Pittsburgh, Pa. (Sheathing)
Carey, Philip, Co., The, Lockland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Edwards Mfg. Co., The, Cincinnati, Ohio. (Iron and steel)
Johns-Manville, New York, N. Y. (Asbestos, cork, etc.)
Keasbey & Mattison Co., Ambler, Pa. (Asbestos)
Littleford Bros., Cincinnati, Ohio.
National Asbestos Mfg. Co., Jersey City, N. J. (Asbestos)
National Lead Co., New York, N. Y.
New Jersey Zinc Co., The, New York, N. Y. (Zinc)
Paraffine Companies, Inc., The, San Francisco, Calif.
Republic Steel Corp., Cleveland, Ohio. (Black, galvanized and painted steel)
Ruberoid Co., The, New York, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio. (Steel decking, asbestos covered)

Rope, Cotton

Hettrick Manufacturing Co., The, Toledo, Ohio.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Rauschenberger, John, Co., Milwaukee, Wis.
Samson Cordage Works, Boston, Mass. (Braided)

Rope, Jute

American Mfg. Co., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Columbian Rope Co., Auburn, N. Y.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Hooven & Allison Co., The, Xenia, Ohio.
Rauschenberger, John, Co., Milwaukee.

Rope, Manila

Allis-Chalmers Manufacturing Co., West Allis, Wis.
All States Roofers Equipment & Material Co., Chicago, Ill.
American Manufacturing Co., Brooklyn, N. Y.
Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Hooven & Allison Co., The, Xenia, Ohio.
Kelley, R. A., Co., The, Xenia, Ohio.
Plymouth Cordage Co., North Plymouth, Mass.

(Continued on page 271)

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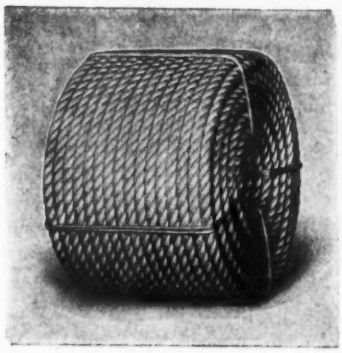

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Binder Twine
Twisted and Braided Jute Packing
Hemp Packing
Plumbers and Marine Oakum
Jute and Hemp Twines
Hard Fiber Twines and Lath Yarn
Tarred Marlines and Houseline
Clothes Lines
Fodder Yarn

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Rope, Manila

(Continued from page 270)

Rauschenberger, John, Co., Milwaukee.
Rochester Ropes, Inc., Jamaica, N. Y.
St. Louis Cordage Mills, St. Louis, Mo.
Upson-Walton Co., The, Cleveland, O.
Whitlock Cordage, New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Rope, Marline Covered

American Steel & Wire Co., Chicago, Ill.
Columbian Rope Co., Auburn, N. Y.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Rauschenberger, John, Co., Milwaukee.
Rochester Ropes, Inc., Jamaica, N. Y.
St. Louis Cordage Mills, St. Louis, Mo.
Upson-Walton Co., The, Cleveland, Ohio.
Wickwire Spencer Tool Co., New York, N. Y.
Wire Rope Corporation of America, New Haven, Conn.

Rope, Rawhide

Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Schieren, Chas., A., Co., New York, N. Y.
Western Rawhide & Belting Co., Milwaukee, Wis.

Rope, Sisal

American Manufacturing Co., Brooklyn, N. Y.
Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Hooven & Allison Co., The, Xenia, Ohio.
Kelley, R. A., Co., The, Xenia, Ohio.
Plymouth Cordage Co., North Plymouth, Mass.
Rauschenberger, John, Co., Milwaukee.
St. Louis Cordage Mills, St. Louis, Mo.
Upson-Walton Co., The, Cleveland, Ohio.
Wall Rope Works, Inc., New York, N. Y.
Whitlock Cordage, New York, N. Y.

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Rope, Transmission

(See "Rope, Manila," "Rope, Wire," and "Rope, Rawhide")

Rope, Wire

American Cable Co., Inc., Wilkes-Barre, Pa.
American Steel & Wire Co., Chicago, Ill.
Belleville Wire Cloth Co., Belleville, N. J.
Broderick & Bascom Rope Co., St. Louis.
Columbia Steel Co., United States Steel Corp. Subsidiary, San Francisco, Cal.
Edwards, E. H., Co., San Francisco, Cal.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Leschen, A., & Sons Rope Co., St. Louis.
Macwhyte Co., Kenosha, Wis.
Pacific Wire Rope Co., Los Angeles, Cal.
Rochester Ropes, Inc., Jamaica, N. Y.
Roebling's, John A., Sons Co., Trenton, N. J.
Union Wire Rope Corp., Kansas City, Mo.
Upson-Walton Co., The, Cleveland, Ohio.
Wickwire Spencer Steel Co., New York.
Williamsport Wire Rope Co., Williamsport, Pa.
Wire Rope Corp. of America, New Haven, Conn.
Wire Rope Mfg. & Equipment Co., Seattle, Wash.

Ropes, Tow

American Cable Co., Inc., Wilkes-Barre, Pa.
American Manufacturing Co., Brooklyn, N. Y.
American Steel & Wire Co., Chicago.
Broderick & Bascom Rope Co., St. Louis.
Buffalo Wire Works Co., Inc., Buffalo.
Fitler, Edwin H., Co., The, Philadelphia, Pa.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Leschen, A., & Sons Rope Co., St. Louis.
Macwhyte Co., Kenosha, Wis.
Rauschenberger, John, Co., Milwaukee.
Roebling's, John A., Sons Co., Trenton, N. J.
Samson Cordage Works, Boston, Mass.
Wall Rope Works, Inc., New York, N. Y.
Whitlock Cordage, New York, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.

Rounders or Jointers, Saw Guide

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Swett, Frank W., & Son, Chicago, Ill.

Routers, Portable

Buckeye Portable Tool Co., The, Dayton, Ohio. (Pneumatic)
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio. (Electric)
Hermance Machine Co., Williamsport, Pa. (Stair)
Onsrud Machine Works, Inc., Chicago, Ill.
Orum, S. R. M., Inc., Philadelphia, Pa. (Electric)
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill. (Electric)
Wappat, Inc., Pittsburgh, Pa. (Electric)

Routers, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Colladay Machine Works, Philadelphia.
Disston, Henry, & Son, Inc., Tacony, Philadelphia, Pa.

Rubber, Plastic and Liquid

Glover, Manson, Stoughton, Mass.
Self-Vulcanizing Rubber Co., Inc., Chicago.

Rubbers, Packer and Swab

Buffalo Weaving & Belting Co., Buffalo.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Watt's Sons, John M., Philadelphia, Pa.

Rubbing Machines, Flexible Shaft

(See "Machines, Rubbing, Flexible Shaft")

Rules, Aluminum

Lufkin Rule Co., The, Saginaw, Mich.

Rules, Board and Log

Lufkin Rule Co., The, Saginaw, Mich.
Master Rule Mfg. Co., Inc., New York, N. Y.

Rules, Extension

Lufkin Rule Co., The, Saginaw, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.

Rules, Folding

Keuffel & Esser Co., Hoboken, N. J.
Lufkin Rule Co., The Saginaw, Mich.
Master Rule Mfg. Co., Inc., New York.
Stanley Rule & Level Plant, The, New Britain, Conn.

Rules, Glass

Lufkin Rule Co., The, Saginaw, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.

Rules, Slide

Brown & Sharpe Mfg. Co., Providence, R. I.
Gilson Slide Rule Co., Stuart, Fla.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Keuffel & Esser Co., Hoboken, N. J.
Master Rule Mfg. Co., Inc., New York.

Rules, Steel

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Lufkin Rule Co., The, Saginaw, Mich.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.

Improved Lead Joint Runners for All Sizes of Pipes.
All Clamps have Pouring Funnels
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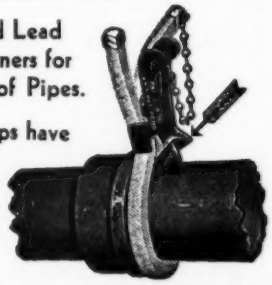

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116 W. Illinois St., Chicago
MANUFACTURER

Runners, Joint

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Johnson, William, Inc., Newark, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Mueller Co., Decatur, Ill.

Rust Preventives and Removers

Babbitt Steam Specialty Co., New Bedford, Mass.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Eagle-Picher Lead Co., The, Chicago, Ill.
Goodrich, B. F., Co., The, Akron, Ohio.
Hollow Center Packing Co., The, Cleveland, Ohio.
Ideal Commutator Dresser Co., Sycamore, Ill.
Kellogg Products Co., New York, N. Y.

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"Red End," Spring Joint
Aluminum Rules
Boxwood Rules

Stock LUFKIN Rules and you can best serve every demand
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THE LUFKIN RULE CO.
SAGINAW, MICHIGAN, U.S.A.
NEW YORK
106-110 Lafayette St.

Why is this brand preferred?

TRU-LAY Preformed WIRE ROPE

BECAUSE IT IS PREFORMED BY THE AMERICAN CABLE COMPANY

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FOR 78 years wire rope was, well—just wire rope. Then along came TRU-LAY (1924) and immediately standards of wire rope excellence were re-established; accepted levels of wire rope efficiency were materially heightened. . . . Because TRU-LAY was preformed—and preformed rope was far more efficient, in practically all applications. ¶ Industrialists everywhere welcomed TRU-LAY Preformed, since here was a rope that not only outlasted other ropes, but in so doing kept their machinery in longer continuous operation. For the entire wire rope industry TRU-LAY Preformed became the standard of excellence. ¶ Today (in only twelve or thirteen years) TRU-LAY Preformed has so proved its superiority that: . . . 80 per cent of the American Cable Company's plant production is devoted to the manufacture of TRU-LAY Preformed; . . . the demand of TRU-LAY Preformed is not only continuing to grow, but is constantly widening to every field of operation. Write the District Office nearest you. They are in: Atlanta—Chicago—Denver—Detroit—New York—Philadelphia Pittsburgh—Houston and San Francisco.

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WILKES-BARRE, PENNSYLVANIA
An Associate Company of the American Chain Company, Inc.
Bridgeport, Connecticut

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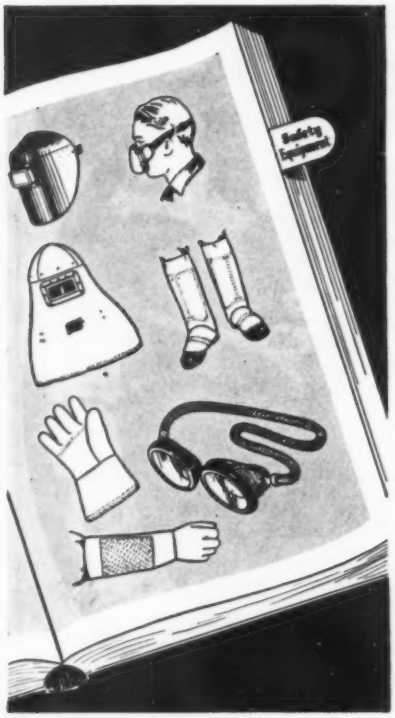

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Rust-Pruf Co., The, Chicago, Ill.
Superior Flake Graphite Co., Chicago, Ill.
Whiting Leather & Belting Co., Long Island City, N. Y.
Wilbur & Williams Co., The, Boston, Mass.

Saddles, Pipe

Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Keating, E. F., Co., New York, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Skinner, M. B., Co., South Bend, Ind.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Safety Appliances, Machinery

(See "Guards and Safety Appliances, Machinery")

Safety Clothing, Asbestos

Darcoid Co., The, Inc., New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Industrial Gloves Corp., Danville, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Safety Equipment

(See "Ladders," "Shoes," "Gloves," "Goggles," "Leggings," "Caps," etc.)

Safety Outfits, Fire Fighting, Asbestos

Bullard, E. D., Co., San Francisco, Cal.
Chicago Belting Co., Chicago, Ill.
Chicago Eye Shield Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Industrial Gloves Corp., Danville, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland, Ohio.
Safety Fire Extinguisher Co., The, New York, N. Y.

Safety Treads

Norton Co., Worcester, Mass.

Sal-Ammoniac, for Cleaning Soldering Irons

American Solder & Flux Co., Philadelphia.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.

Salamanders

Channon, J. H., Corp., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
General Wheelbarrow Co., The, Cleveland.
Hauck Manufacturing Co., Brooklyn, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Littleford Bros., Cincinnati, Ohio.

Salts, Soldering, Metal

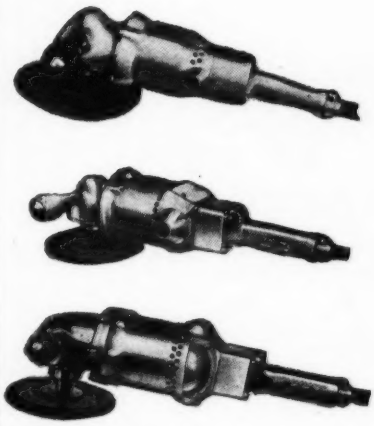
American Solder & Flux Co., Philadelphia.
Benson, Alexander R., Co., Inc., Hudson, N. Y.
Burnley Battery & Mfg. Co., North East, Pa.
Dunton, M. W., Co., The, Providence, R. I.
Garden City Laboratory, Inc., Chicago, Ill.
McGill Manufacturing Co., Valparaiso, Ind.

Sand Blast Machines and Equipment

American Foundry Equipment Co., Mishawaka, Ind.
Dallett Co., The, Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Leiman Bros., Inc., Newark, N. J.
Minnesota Mining & Mfg. Co., St. Paul, Minn. (Sandblast stencil only)

"Van Dorn"

Portable Electric SANDERS



A complete line of Sanders for intermittent and heavy duty service.

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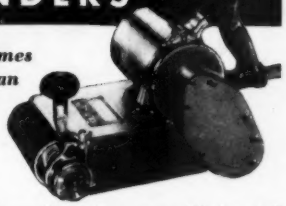
For sanding, filing, metal and wood surfacing.

The **VAN DORN Electric Tool Co.**
TOWSON, MD.

SKILSAW
SANDERS

10 to 40 times faster than sanding by hand



Made in 2 models. ***See page 29 for full specifications and prices.***

SKILSAW, INC. • 3330 Elston Ave., Chicago

Mott Sand Blast Mfg. Co., Inc., Chicago.
Pittsburgh Crushed Steel Co., Pittsburgh. (Abrasives)
Ruemelin Mfg. Co., Milwaukee, Wis.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schramm, Inc., West Chester, Pa.
Sutorbilt Corp., Los Angeles, Calif.

Sandals, Pavers', Asphalt

Littleford Bros., Cincinnati, Ohio.

Sanders, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Boice-Crane Co., Toledo, Ohio.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Independent Pneumatic Tool Co., Chicago.
Jones Superior Machine Co., Chicago.
Oliver Machinery Co., Grand Rapids, Mich.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Sterling Products Co., Detroit, Mich.
Stow Mfg. Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Walls Sales Corp., New York, N. Y.

Sanders, Floor

Skilsaw, Inc., Chicago, Ill.

Sanding Machines

(See "Machines, Sanding")

Sandpaper

Armour Sand Paper Works, Chicago, Ill.
Baeder Adamson Co., St. Paul, Minn.
Behr-Manning Corporation, Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Clover Mfg. Co., Norwalk, Conn.
Grobet File Corp. of America, New York.
Mid-West Abrasive Co., Detroit, Mich.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Wausau Abrasives Co., St. Paul, Minn.

Savers, Pipe (For Pipe Ends)

Pipe Saver Corp., of America, Carthage, N. Y.
Sarco Co., Inc., New York, N. Y.

Saw Filing, Setting and Jointing Machines

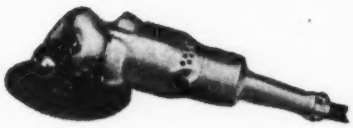
(See "Machines, Filing and Setting, Band Saw," and "Machines—Saw Filing, Setting and Joining")

Saw Mills (and Saw Rigs), Portable

Beach Mfg. Co., Montrose, Fla.
Boice-Crane Co., Toledo, Ohio.
Corley Manufacturing Co., Chattanooga, Tenn.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Delta Mfg. Co., Milwaukee, Wis.
Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Heston & Anderson, Fairfield, Iowa.

BLACK & DECKER

PORTABLE ELECTRIC SANDERS



No. 17 Junior Sander
For light duty and intermittent service

No. 35 Heavy Duty Sander

For Production Service

No. 45, 7" and 9" Sanders
For heavy duty Sanding, Filing, Metal and Wood surfacing.

The Black & Decker Mfg. Co.
Towson, Maryland

SKILSAW
FLOOR SANDER

A Real Heavy Duty FLOOR SURFACER
at a New Low List Price!

Attractive Discounts on Single Order Purchases

IDEAL FOR RENTAL USE! Designed to do the most particular job of surfacing—right up to the base-board—easily and quickly! Will surface 2,500 ft. of new flooring a day. Powerful motor. All ball-bearing construction. Separate vacuum motor picks up dust on both forward and backward operations. 7 in. sanding drum. Weighs 145 lbs.

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Leach Co., Oshkosh, Wis.
Loane Engineering Co., Baltimore, Md.
Mountville Mfg. Co., Mountville, Pa.
Onan, D. W., & Sons, Minneapolis, Minn.
Portable Power Tool Corp., Warsaw, Ind.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saw Sets

Atkins, E. C., and Co., Indianapolis, Ind.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Foley Manufacturing Co., Minneapolis, Minn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Holcomb, A. L., Co., Grand Rapids, Mich.
Johnson, William, Inc., Newark, N. J.
Knight Mfg. Co., The, Cuyahoga Falls, O.
Millers Falls Co., Greenfield, Mass.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Swett, Frank W., & Sons, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Sawing Machines, Band

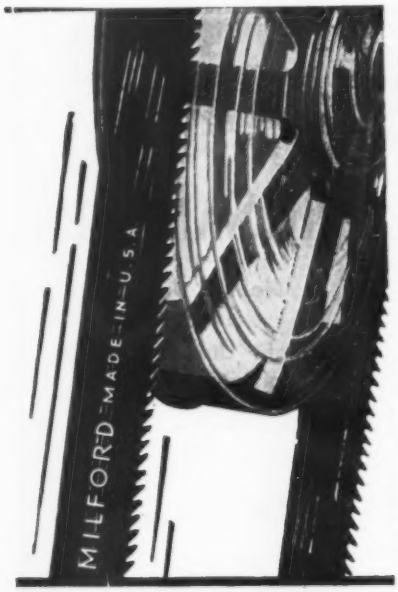
(See "Machines, Band Saw")

Sawing Machines, Radial

(See "Machines, Sawing, Radial")

Sawing Outfits, Cordwood

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Disston, Henry, & Son, Inc., Tacony, Philadelphia, Pa.
Loane Engineering Co., Baltimore, Md.
Moak Machine & Tool Co., Port Huron, Mich.
Millers Falls Co., Greenfield, Mass.
Mountville Manufacturing Co., Mountville, Pa.
Nelson Bros. Co., Saginaw, Mich.
Swett, Frank W., & Son, Chicago, Ill.



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Selective

BAND SAW SERVICE

Blades exactly suited for every metal cutting need.

MILFORD "R S" BLADE

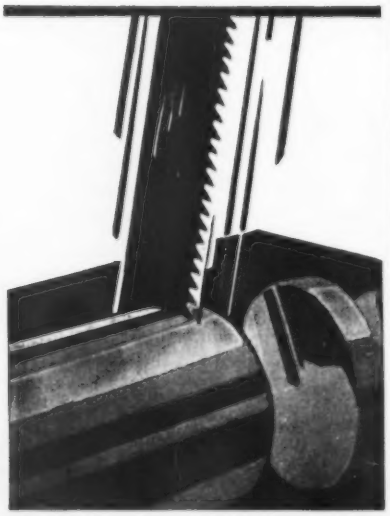
for cutting Stainless, High Speed and Tool Steels.

MILFORD "C C" BLADE

for cutting non-ferrous metals and general cutting.

Correct steel, set and temper for all requirements.

THE HENRY G. THOMPSON & SON CO.
NEW HAVEN, CONN.



DEPENDABLE . . . .

Atkins Metal Band Saws have an exceptionally hard edge, fast cutting tooth, strong back that holds the teeth and will not check or break. All standard points, widths. Also wood cutting bands, all sizes.

E. C. ATKINS & COMPANY
420 South Illinois St.
INDIANAPOLIS, INDIANA

Saws, Back

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Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Heston & Anderson, Fairfield, Iowa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Band (Machine)

(See "Machines, Band Saw")

Saws, Band, Metal Cutting (Blades)

American Saw & Mfg. Co., Springfield, Mass.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. O., Co., Inc., Detroit, Mich.
Boice-Crane Co., Toledo, Ohio.
Channon, J. H., Corp., Chicago, Ill.
Clemson Bros., Inc., Middletown, N. Y.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Grobet File Corp. of America, New York, N. Y.
Hammel, Riglander & Co., Inc., New York, N. Y. (Jewelers')
Hoe, R. & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Metal Saw & Machine Co., Inc., Springfield, Mass.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Peerless Machine Co., Racine, Wis.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

(Continued on page 277)

WHALE **BAND SAWS**

Whale Band Saws include the right kind of blade for every band saw cutting operation.

Whale Flexible Band Saws for general cutting of steels, cast iron, bronze and all metals.

Whale Spring Temper Band Saws for cutting soft thin material at high speed; can be run 3,000 to 10,000 feet per minute saw speed, depending on metals to be cut.

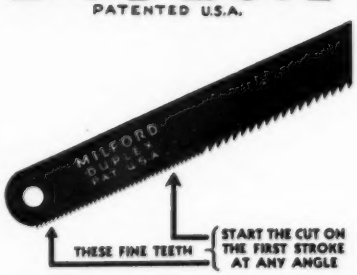
THE FORSBERG MFG. CO.
BRIDGEPORT, CONN., U. S. A.

MILFORD REZISTOR

HIGH SPEED CUTTING

MILFORD DUPLEX

PATENTED U.S.A.



THE EASY STARTING HACK SAW BLADE

Note these SEVEN Outstanding Features

1. Starts cut at any angle.
2. Teeth will not catch in corners.
3. Starts quickly with a full cutting stroke.
4. Reduces cutting time.
5. No scraping to begin cut.
6. Will not slip off cutting line.
7. Distributes wear full length of blade.

THE HENRY G. THOMPSON & SON CO.
NEW HAVEN, CONN.

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LENOX
Metal Cutting
BAND SAWS

PROFIT and PRESTIGE
•• make ••
• EASIER SALES
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Continuous use has proved to operators that Lenox Band Saws last longer—do their job better—cut production costs. Naturally, they are easier to sell—naturally, they increase band saw profits.

AMERICAN SAW & MFG. CO.
SPRINGFIELD, MASS.

AMERICAN SAW & MFG. CO. ★ QUALITY LENOX TOOLS ★ SPRINGFIELD, MASS. U.S.A.

Saws, Band, Metal Cutting (Blades)

(Continued from page 276)

Thompson, Henry G., & Son Co., The, New Haven, Conn.
Victor Saw Works, Inc., Middletown, N. Y.
Walls Sales Corp., New York, N. Y.
Wells Manufacturing Corp., Three Rivers, Mich.

Saws, Band, Narrow

American Saw & Mfg. Co., Springfield, Mass.
Atkins, E. C., and Co., Indianapolis, Ind.
Boice-Crane Co., Toledo, Ohio.
Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

(Continued on page 278)

PREFERENCE MEANS PROFITS

Executives prefer Victor Hack Saw Blades because they outcut, outlast and outclass . . mechanics prefer them because they cut true and fast with little effort. This preference means profits for you.

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VICTOR SAW WORKS, INC.
Middletown, N.Y.

BARNES METAL CUTTING BAND SAW BLADES

When you sell Barnes Band Saw Blades you sell customer satisfaction and operating economy

THE BARNES LINE is complete—it includes the proper blade for every type of band saw cutting operation.

BARNES HARD EDGE FLEXIBLE BACK BLADES for steels, cast iron, bronze, and all hard metals, have milled teeth with square cutting edges. They cut straight and have long life.

BARNES SPRING TEMPER BLADES for aluminum, soft brass, sheet steel, and all soft metals give finest service at even the highest speeds. They may be re-filed and reset.

Our distributor policy and resale prices assure most attractive profit opportunities. We guarantee quick service on all orders. Write for complete information.

W. O. BARNES CO., INC.
1297 Terminal Ave. Detroit, Mich.

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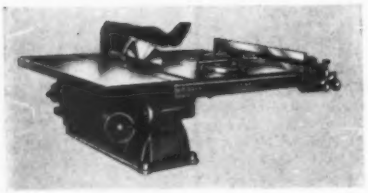
WALKER-TURNER

BENCH SAWS



No. B961—10"—capacity full 3" stock.
No. B941— 8"—capacity 2¼ inches.
No. B735— 8"—capacity 2¼ inches.
No. B575— 7"—capacity 2¼ inches.

Walker-Turner offers four models of bench saws to meet the requirements of industrial plants, woodworking and pattern shops and occasional users. Carefully engineered, sturdily and accurately built with positive safety devices.

Described in the new 1937 Walker-Turner catalog.

WALKER-TURNER CO., INC.
Plainfield, N. J.

Engineered POWER TOOLS

Saws, Band, Narrow

(Continued from page 277)

Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Grobet File Corp. of America, New York, N. Y.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Racine Tool & Machine Co., Racine, Wis.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.
Walls Sales Corp., New York, N. Y.

SOLD ONLY THROUGH DISTRIBUTORS

Victor Hack Saw Blades are sold ONLY through distributors. The Victor plan of selling protects your market and your profits at all times. Write for complete information.

• • •

VICTOR SAW WORKS, INC.
Middletown, N.Y.

SIMONDS SAWS

SIMONDS Saw and Steel Company Fitchburg, Mass.

Circular and Band Saws of all kinds for cutting wood or metal.

Saws, Band, Woodcutting (Blades)

American Saw & Mfg. Co., Springfield, Mass.
Atkins, E. C., and Co., Indianapolis, Ind.
Boice-Crane Co., Toledo, Ohio.
Chattanooga Saw Works, Chattanooga, Tenn.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Walls Sales Corp., New York, N. Y.
Wells Manufacturing Corp., Three Rivers, Mich.

Saws, Bench

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Boice-Crane Co., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Oliver Machinery Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio. (Tilting arbor)
Walker-Turner Co., Inc., Plainfield, N. J.
Walls Sales Corp., New York, N. Y.
Wappat, Inc., Pittsburgh, Pa.
Wood, H. C., Machine Works, San Francisco, Calif.

Saws, Buck

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Mountville Mfg. Co., Mountville, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Circular, Metal Cutting

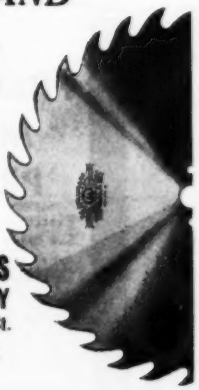
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Boice-Crane Co., Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Burr, John T., & Son, Brooklyn, N. Y.
Cowles Tool Co., Cleveland, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Grobet File Corp. of America, New York, N. Y.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Holcomb, A. L., Co., Grand Rapids, Mich.
Ideal Commutator Dresser Co., Sycamore, Ill. (Also Mica saws)
Illinois Tool Works, Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
National Tool Co., The, Cleveland, Ohio.
National Twist Drill & Tool Co., Detroit.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.
Sandvik Saw & Tool Corp., Minneapolis, Minn.

ACCURATE

Atkins Silver Steel Inserted Tooth Circular Saws are economical for either winter or summer sawing. They remain the same size and run for years and capable of standing heavy feed 10" to 72" diameter. Teeth and Holders are the best, all standard patterns and points.

AND

TOUGH



Atkins Solid Tooth Circular Saws by years of use, have proved their efficiency, dependability and economical operation. 4" to 84" diameter.

E.C. ATKINS & COMPANY
420 South Illinois St.
INDIANAPOLIS, INDIANA

Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Thurston Mfg. Co., Providence, R. I.
Van Dorn Electric Tool Co., The, Towson, Md.
Wood, H. C., Machine Works, San Francisco, Cal.

Saws, Circular, Woodcutting

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Boice-Crane Co., Toledo, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
Corley Manufacturing Co., Chattanooga, Tenn.
Curtis Pneumatic Machinery Co., St. Louis.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Filer & Stowell Co., The, Milwaukee, Wis.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mountville Mfg. Co., Mountville, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Red Star Products Corp., Cleveland, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saws, Compass and Keyhole

Atkins, E. C., and Co., Indianapolis, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.

Saws, Concave

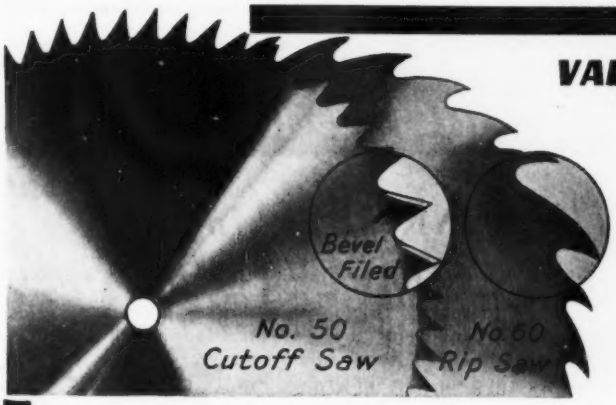
Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Disston, Henry, & Sons., Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Lippert, E. T., Saw Co., The, Pittsburgh.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.
Wappat, Inc., Pittsburgh, Pa.

Saws, Coping

Ackermann, Steffan & Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. O., Company, Inc., Detroit, Mich.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Grobet File Corp. of America, New York, N. Y.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Metal Saw & Machine Co., Inc., Springfield, Mass.
Millers Falls Co., Greenfield, Mass.
Ruleta Co., Inc., New York, N. Y.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Washburn Co., The, Worcester, Mass.

Saws, Cut-Off

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Boice-Crane Co., Toledo, Ohio.



VALUE IN SAWS

That Strikes Home to Every Saw Man

These Ohlen-Bishop Factory Brand Saws are of oil tempered special analysis steel. Properly tensioned by expert saw makers for *high speed production.* Extra high finish, bevel filed ready for fast cutting.

Send for complete specifications and prices to appreciate the extra value and profit Ohlen-Bishop offers you.

OHLEN-BISHOP SAWS

COLUMBUS, OHIO Spring Tempered Metal Cutting Band Saws — Wood Cutting Band Saws

REMEMBER!

Ohlen-Bishop Chromsaws are sold only through distributors.

Chattanooga Saw Works, Chattanooga, Tenn.
Construction Machinery Co., Waterloo, Ia.
Colladay Machine Works, Philadelphia, Pa.
Corley Manufacturing Co., Chattanooga, Tenn.
Curtis Pneumatic Machinery Co., St. Louis.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lane Mfg. Co., Montpelier, Vt.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mattison Machine Works, Rockford, Ill. (Wood)
Memphis Machine Works, Memphis, Tenn.
Miller Machine Works, Springs, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
United States Machine Co., Williamsport, Pa.
Wappat, Inc., Pittsburgh, Pa.
Wells Manufacturing Corp., Three Rivers, Mich.
Wood, H. C., Machine Works, San Francisco, Calif.

Saws, Drag

Atkins, E. C., and Co., Indianapolis, Ind.
Clopp, Geo. B., Iron Works, Philadelphia.
Curtis Pneumatic Machinery Co., St. Louis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Lane Mfg. Co., Montpelier, Vt.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mountville Mfg. Co., Mountville, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Electric, Portable and Stationary

Aldon Co., The, Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Boice-Crane Co., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Construction Machinery Co., Waterloo, Ia.
Delta Mfg. Co., Milwaukee, Wis.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Heston & Anderson, Fairfield, Iowa.
Independent Pneumatic Tool Co., Chicago.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.

APPROVED BY INDUSTRY

Victor Hack Saw Blades are approved by executives and mechanics alike . . . . because they reduce costs on any metal sawing job . . . because they cut faster, last longer and do more work with less effort.

• • •

VICTOR SAW WORKS, INC.
Middletown, N.Y.

Barnes Hack Saw Blades

The BARNES Line is COMPLETE

RED ARROW BLADES. Hand and power types. Made of all high speed steel. Cutting tools without a peer.

SPECIAL UNBREAKABLE HAND BLADES. Offer all the advantages of both all-hard and flexible blades. Will not break in use.

ALL-HARD TUNGSTEN Hand and Power Blades. Have no superior for cutting qualities because of unusual heat treatment.

FLEXIBLE HAND BLADES. An excellent blade for general use. Individually file tested.

BARNES 600. Made for and recommended only for cutting thin section material. Available in 10" and 12" lengths.

SERVICE SPECIAL ALLOY BLADES. Made from a Molybdenum Vanadium alloy. Can be had in regular and heavy hand blade sizes—also heavy duty machine blades.

W. O. BARNES CO., INC.

1297 Terminal Ave. Detroit, Mich.

Saws, Electricians'

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Gang

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Corley Manufacturing Co., Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Grooving

Atkins, E. C., and Co., Indianapolis, Ind.
Corley Manufacturing Co., Chattanooga, Tenn.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mall Tool Co., Chicago, Ill.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saws, Hack (Blades)

American Saw & Mfg. Co., Springfield, Mass.

(Continued on page 281)

Master Woodworker Mfg. Co., Detroit.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Moak Machine & Tool Co., Port Huron, Mich.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Reed-Prentice Corp., Worcester, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.
Syntron Co., Pittsburgh, Pa.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Wells Manufacturing Corp., Three Rivers, Mich. (Electric butcher saws)
Wood, H. C., Machine Works, San Francisco, Cal.

FOR EVERY NEED

There is a Victor Hack Saw Blade to meet your customer's every metal sawing requirement—power or hand. In the long run these outstanding blades cost less because they cut faster and last longer.

• • •

VICTOR SAW WORKS, INC.
Middletown, N.Y.

BLU-MOL

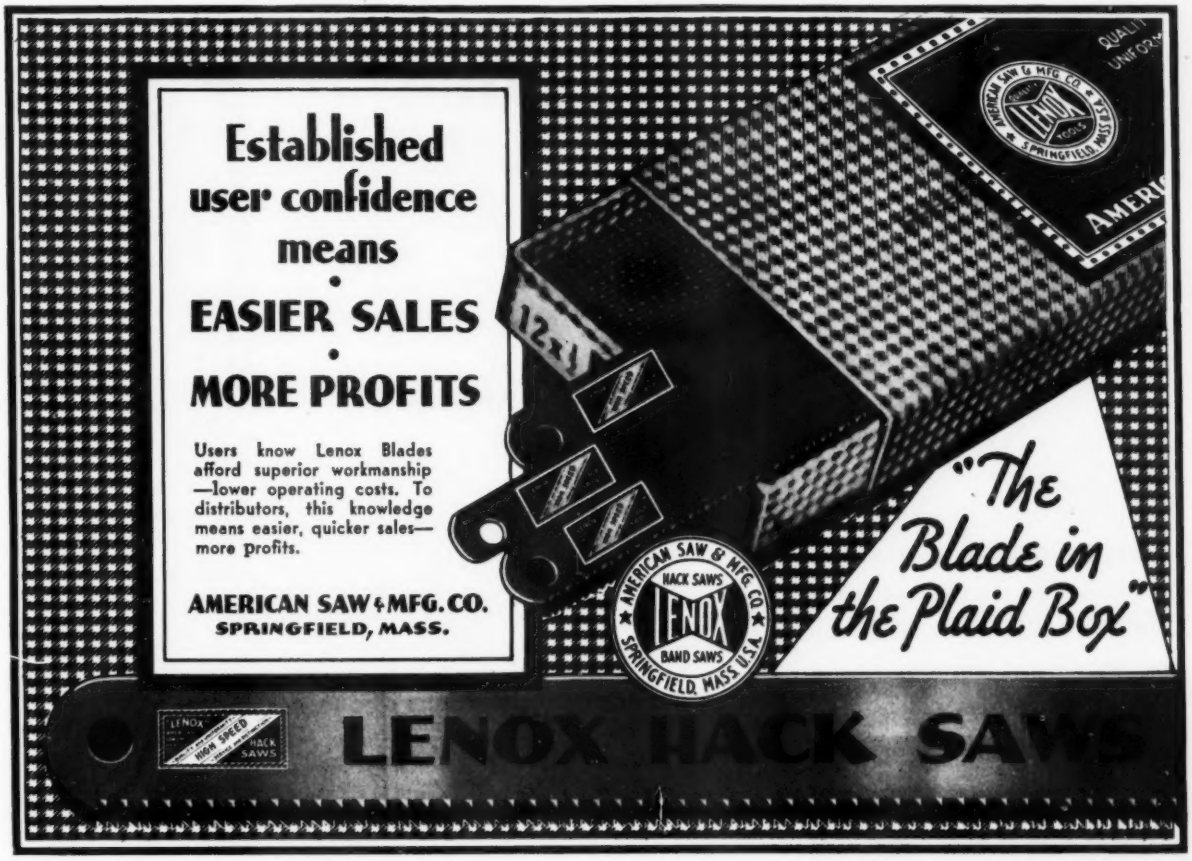
MOLYBDENUM

THE OUTSTANDING HACK SAW ACHIEVEMENT FOCUSES DISTRIBUTOR ATTENTION ON THE MILLERS FALLS COMPLETE LINE OF TUNGSTEN MOLYBDENUM AND HIGH SPEED BLADES

If you're interested in stepping up hack saw sales—if you want a line that will win in competition—investigate MILLERS FALLS BLADES

MILLERS FALLS COMPANY
GREENFIELD, MASS.

UMI



WHALE

HACK SAW BLADES

A complete line of power and hand blades for all types of metal cutting.

Made of tungsten high speed steel for the most difficult cutting jobs.

Made of Molybdenum High Speed Steel. Resist wear—Economical to use.

Made from tungsten alloy steel. Whale Tungsten Blades are furnished in Spring Temper, Flexible and All Hard types.

THE FORSBERG MFG. CO.
Bridgeport, Conn., U. S. A.

Saws, Hack (Blades)

(Continued from page 280)

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. O., Co., Inc., Detroit, Mich.
Clemson Bros., Middletown, N. Y.
Diamond Saw & Stamping Works, Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Great Neck Saw Mfrs., Inc., Great Neck, N. Y.
Grobet File Corp. of America, New York, N. Y.
Millers Falls Co., Greenfield, Mass.
Misener Mfg. Co., Inc., Syracuse, N. Y. (Rotary)

(Continued on page 282)

EASY TO SELL

Victor Hack Saw Blades are easy to sell because they cost less per cut . . . because there is a Victor to meet every metal sawing requirement—power or hand.

• • •

VICTOR SAW WORKS, INC.
Middletown, N.Y.

positively unbreakable !

only MARVEL High-Speed-Edge HACK SAW BLADES

can be both "High-Speed" and Unbreakable

No other blade can have a genuine high speed steel cutting edge and at the same time be positively unbreakable. No other high speed blade can offer: "greater feed pressures" and "higher running speeds" with absolute safety. This means that no other blade can give as many cuts per hour nor as many cuts per dollar. Sell shatter-proof MARVEL High-Speed-Edge Blades for every power saw and guarantee uninterrupted service at capacity—maximum production from every machine. Sell the blades you'd buy—MARVEL High-Speed-Edge.

Write for Catalog

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
339 N. Francisco Ave., CHICAGO

The new revised edition of Starrett Catalog No. 25 EG illustrates and describes the complete line of Starrett hand and power hacksaw blades and the Starrett line of hand frames. Write for copies.

THE L. S. STARRETT CO.

World's Greatest Toolmakers
Manufacturers of Hacksaws Unexcelled
Steel Taper—Standard for Accuracy

ATHOL, MASS., U. S. A.

Sell Starrett Hacksaws

OUTSTANDING

Victor Hack Saw Blades are outstanding because they outcut, outlast and outclass . . . because they cut costs on any job—power or hand.

• • •

VICTOR SAW WORKS, INC.
Middletown, N. Y.

Saws, Hack (Blades)

(Continued from page 281)

Napier Saw Works, Inc., Middletown, N. Y.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Spartan Saw Works, Inc., Springfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Thompson, Henry G., & Son Co., The, New Haven, Conn.
Victor Saw Works, Inc., Middletown, N. Y.

•

Street Addresses

or

Post Office Box Numbers

of Manufacturers

whose products are

listed in the

Directory Edition

will be found

in the

"Names and Addresses"

Section

•

SPEED . . .

Atkins Silver Steel Hacksaw Blades (hand and power) are the original high grade blades and are recommended for all kinds of hacksaw cutting. These blades are guaranteed to cut more metal . . . faster and easier than any other blade. All standard lengths, teeth, gauges.

Also a full line of hand and power alloy blades.

E. C. ATKINS & COMPANY
420 South Illinois St.
INDIANAPOLIS, INDIANA

Saws, Hack (Machine)

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Clark, James, Jr., Electric Co., Louisville, Ky.
Grobet File Corp. of America, New York, N. Y.
Millers Falls Co., Greenfield, Mass.
Racine Tool & Machine Co., Racine, Wis.
Robertson, W., Machine & Foundry Co., Buffalo, N. Y.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sandvik Saw & Tool Corp., Minneapolis.
Syntron Company, Pittsburgh, Pa.

Saws, Hack, Rotary

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Black & Decker Mfg. Co., The, Towson, Md.
Misener Mfg. Co., Inc., Syracuse, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
U. S. Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Saws, Hand

Aldon Co., The, Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Skilsaw, Inc., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

TOUGH • Silver Steel, Segment Ground Cross-cut Saws were designed to fill a demand for better saws and are acknowledged leaders. Proper toothing, hand-smithed blades, perfect temper and expert workmanship. All widths, lengths, patterns.

E. C. ATKINS & COMPANY
420 South Illinois St.
INDIANAPOLIS, INDIANA

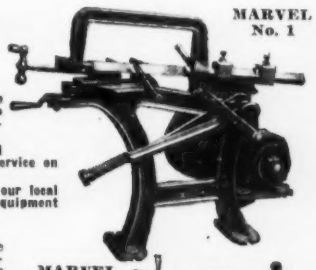
Keep Posted on the Mill Supply Industry by Reading Mill Supplies

MARVEL Hack Saws and Sawing Machines

MARVEL offers a complete System for metal sawing with a complete line of modern equipment, all the way from the cutting blade itself to all the various sawing machines that are particularly adapted to individual sawing jobs.

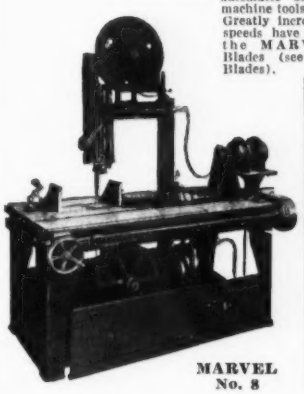
MARVEL sales engineers are available in all the large industrial centers and are equipped to render complete consulting engineering service on all cutting-off problems.

If your customers use metal in bar or billet form, ask us to send our local sawing engineer to make recommendation to you of complete sawing-equipment and methods program to fit any specific production requirement.



MARVEL No. 1

The MARVELS No. 6A and No. 9A introduce a new thing in cutting-off equipment—heavy-duty, full ball bearing, high speed saws with automatic bar push-up, production machine tools in capacities to 10"x10". Greatly increased pressure feeds and speeds have been made possible by the MARVEL High-Speed-Edge Blades (see ad under Hack Saw Blades).



MARVEL No. 8

General Purpose Hack Saws
No. 1 4"x4"
No. 2 8"x8"
Light Duty High Speed
No. 4B 6"x6"
Heavy Duty High Speed
No. 6 6"x6"
No. 9 10"x10"
No. 18 18"x18"
Metal-Cutting Band Saw
No. 8 18"x18"
Production Automatics
No. 6A 6"x6"
No. 9A 10"x10"
No. 18 Hydraulic 18"x18"

MARVEL No. 6A

Write for Circular

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
339 N. Francisco Ave. CHICAGO, U.S.A

Distributors---

Are ALL Your Salesmen Receiving MILL SUPPLIES regularly?

If not---

Why not take advantage of our interesting group subscription plan for mill supply houses?

MILL SUPPLIES

"The Magazine for Distributors and Their Salesmen"

SKILSAW

The Original Portable ELECTRIC HANDSAW

Cuts Wood, Metal, Stone and Compositions

The fastest selling electric handsaw in the world . . . because it cannot be equalled for construction features, mechanical refinements and operating performance. Thousands in use in production, maintenance and construction. Made in 7 powerful sizes.

See page 29 for full specifications and prices

SKILSAW, INC. • 3330 Elston Ave., Chicago

BLACK & DECKER

HOLE SAWS

from 3/4" *up to* 4"

Fit 1/2" or larger electric drills for cutting clean, round holes in any material.

The
BLACK & DECKER Mfg. Co.
TOWSON, MD.

Saws, Hand, Electric

Atkins, E. C., and Co., Indianapolis, Ind.
Black & Decker Mfg. Co., The, Towson, Md.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Portable Power Tool Corp., Warsaw, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Saws, Hole

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Black & Decker Mfg. Co., Towson, Md.
Millers Falls Co., Greenfield, Mass.
Misener Mfg. Co., Inc., Syracuse, N. Y.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Saws, Ice

Atkins, E. C., and Co., Indianapolis, Ind.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Sandvik Saw & Tool Corp., Minneapolis.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill. (Dry ice)
Wappat, Inc., Pittsburgh, Pa.

Saws, Jig, Electric

Beebe Bros., Seattle, Wash.
Boice-Crane Co., Toledo, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Ruleta Co., Inc., New York, N. Y.
Speedway Mfg. Co., Cicero, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.

Saws, Metal Slitting

Alvord-Polk Tool Co., Millersburg, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Grobet File Corp. of America, New York, N. Y.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Illinois Tool Works, Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Tool Co., The, Cleveland, Ohio.
National Twist Drill & Tool Co., Detroit.
Portable Power Tool Corp., Warsaw, Ind.

MARVEL HOLE SAWS

High-Speed Steel Teeth

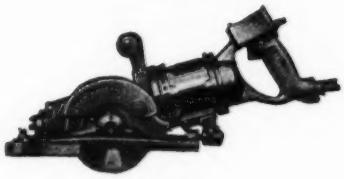
Far large holes at low cost. Outcut, outlast all other hole saws. Handle a far greater range of work. Combine fast-cutting, long-lasting quality of High Speed Steel with an UNBREAKABLE, shatter-proof characteristic. Have sufficient strength for production work on electric drills and DRILL PRESSES—have sufficient set for deep drilling. Sizes from 3/4" to 4 1/8". These new type tools increase the capacity of any drill press.

Write for Circular

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
339 N. Francisco Ave., Chicago, U.S.A.

"Van Dorn"

PORTABLE ELECTRIC SAWS



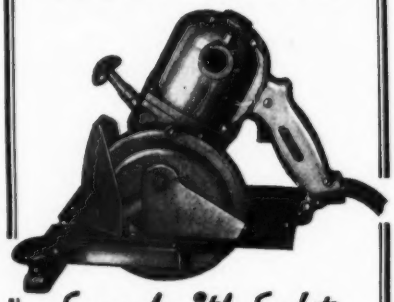
6", 8" & 10" Sizes

Adjustable for depth and angle of cut

The
VAN DORN ELECTRIC TOOL CO.
TOWSON, MD.

• STANLEY •

SAFETY SAWS



Speed with Safety

- FAST—a 9" saw rips 6 ft. of oak, 3 in. thick in 1 1/2 minutes—10 times faster than hand sawing.
- SAFE — patented safety guard and momentary contact switch protect the user.
- Four sizes for wood—6", 9", 12" and 16" blades. Two sizes for stone — 9" and 12" wheels.
- Write for details.

STANLEY ELECTRIC TOOL DIVISION
The Stanley Works
141 Elm Street New Britain, Conn.

STANLEY *Electric* TOOLS

Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Tool Co., Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Saws, Mitre, Circular

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Chattanooga Saw Works, Chattanooga, Tenn.
Corley Manufacturing Co., Chattanooga, Tenn.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Milwaukee Electric Tool Corp., Milwaukee.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa.

Saws, Mitre Box

Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ingersoll-Rand Co., New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Ohlen-Bishop Co., The, Columbus, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Pneumatic

Ingersoll-Rand Co., New York, N. Y.
Reed-Prentice Corp., Worcester, Mass.
Schramm, Inc., West Chester, Pa.

Saws, Rail

Aldon Co., The, Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Racine Tool & Machine Co., Racine, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Swett, Frank W., & Son, Chicago, Ill.
Syntron Co., Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.

Saws, Rift

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Corley Manufacturing Co., Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Filer & Stowell Co., The, Milwaukee, Wis.
Hoe, R. & Co., Inc., Bronx, New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Rip, Machine

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Boice-Crane Co., Toledo, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chattanooga Machinery Co., Chattanooga, Tenn.
Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Filer & Stowell Co., The, Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa. (Chain and roll feed)
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Master Woodworker Mfg. Co., Detroit.
Memphis Machine Works, Memphis, Tenn.
Moak Machine & Tool Co., Port Huron, Mich.
Mountville Mfg. Co., Mountville, Pa.
Northfield Foundry & Machine Co., Northfield, Minn.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Saws, Scroll

Ackermann, Steffan & Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. F., & John, Co., Rockford, Ill.
Beach Mfg. Co., Montrose, Pa.
Boice-Crane Co., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Racine Tool & Machine Co., Racine, Wis.
Ruleta Co., Inc., New York, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.

Saws, Shingle

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Corley Manufacturing Co., Chattanooga, Tenn.
Curtis Pneumatic Machinery Co., St. Louis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Slotting

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Corley Manufacturing Co., Chattanooga, Tenn.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Grobet File Corp. of America, New York, N. Y.
Ideal Commutator Dresser Co., Sycamore, Ill. (Commutator mica)
National Tool Co., The, Cleveland, Ohio.
National Twist Drill & Tool Co., Detroit, Mich.
Portable Power Tool Co., Warsaw, Ind.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Tool Co., The, Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Saws, Stone Cutting

Atkins, E. C., and Co., Indianapolis, Ind.
Crucible Steel Co. of America, New York, N. Y.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Mall Tool Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saws, Swing, Cut-Off

Acme-Detroit Saw Corp., Detroit, Mich.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Bell Machine Co., The, Oshkosh, Wis.
Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
Corley Manufacturing Co., Chattanooga, Tenn.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Lane Mfg. Co., Montpelier, Vt.
Master Woodworker Mfg. Co., Detroit.
Memphis Machine Works, Memphis, Tenn.
Miller Machine Works, Springs, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Swett, Frank W., & Son, Chicago, Ill.
United States Machine Co., Williamsport, Pa.

Saws, Tube and Pipe Cutting

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Wells Manufacturing Corp., Three Rivers, Mich.

Saws, Veneer

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Chattanooga Machinery Co., Chattanooga, Tenn.
Chattanooga Saw Works, Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Scaffolding, Steel, Adjustable

Patent Scaffolding Co., The, Chicago, Ill.
Portable Power Tool Corp., Warsaw, Ind.
Toledo Pressed Steel Co., The, Toledo, Ohio.

Scaffolding, Wood, Adjustable

Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati.

Street Addresses

or

Post Office Box Numbers

of Manufacturers whose products are listed in the Directory Edition will be found in the "Names and Addresses" Section

UMI

Scales

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Fairbanks, Morse & Co., Chicago, Ill.
Kron Scale Co., The, Bridgeport, Conn.
Merrick Scale Mfg. Co., Passaic, N. J.
Starrett, L. S., Co., The, Athol, Mass.
Streeter-Amet Co., Chicago, Ill.
Toledo Scale Co., Toledo, Ohio.

Scales, Steel, Mechanics

Brown & Sharpe Mfg. Co., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.

Scoops

(See "Shovels, Scoops and Spades")

Scrapers, Bearing

American Swiss File & Tool Co., Elizabeth, N. J.
Anderson Bros. Mfg. Co., Rockford, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Grobet File Corp. of America, New York.
Hayes File Co., Detroit, Mich.
Heller Bros. Co., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Stevens, Walden, Inc., Worcester, Mass.
Tuck Mfg. Co., Brockton, Mass.
Vichek Tool Co., The, Cleveland, Ohio.

Scrapers, Belt

Atkins, E. C., and Co., Indianapolis, Ind.
Cook, H. N., Belting Co., San Francisco.
Graton & Knight Co., Worcester, Mass.
Link-Belt Co., Chicago, Ill.
Manufacturers' Belt Hook Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Scrapers, Box

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Disston, Henry, & Sons, Inc., Philadelphia.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Scrapers, Cabinet Makers'

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Grobet File Corp. of America, New York.
Millers Falls Co., Greenfield, Mass.
Ohlen-Bishop Co., The, Columbus, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Scrapers, Carbon

Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Scrapers, Drag

American Hoist & Derrick Co., St. Paul.
American Steel Scraper Co., The, Sidney, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Jackson Manufacturing Co., Harrisburg, Pa.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Sidney Steel Scraper Co., The, Sidney, O.
Stephens-Adamson Mfg. Co., Aurora Ill.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Scrapers, Flue

Advance Packing & Supply Co., Chicago.
Chesterton, A. W., Co., Boston, Mass.
Crowell, D. J., & Crowell, F. G., Buffalo.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Worcester Brush & Scraper Co., Division Mason-Worcester Co., Worcester, Mass.

Scrapers, Pipe

Newark Brush & Scraper Co., Irvington, N. J.

Scrapers, Pneumatic

Dallett Co., The, Philadelphia, Pa.
Fairbanks Co., The, New York, N. Y.

Scrapers, Universal

(For Cleaning Walks, Floors, Edging, Etc.)

J. K. L. Manufacturing Co., Rockford, Ill.

Screen, Wire

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Cambridge Wire Cloth Co., Cambridge, Md.
Chase Brass & Copper Co., Waterbury, Conn.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Roebling's, John A., Sons Co., Trenton, N. J.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Screens, Revolving

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chain Belt Co., Milwaukee, Wis.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Harrington & King Perforating Co., Chicago, Ill.
The Jeffrey Manufacturing Co., Columbus, Ohio.
Johnston & Chapman Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Screens, Vibrating

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Huron Industries, Inc., Alpena, Mich.
Jeffrey-Traylor Division of The Jeffrey Mfg. Co., Columbus, Ohio.
Johnston & Chapman Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Screens, Wire, for Coal, Sand, Gravel, Etc.

Beaumont, R. H., Co., Philadelphia, Pa. (Coke screens)
Cambridge Wire Cloth Co., Cambridge, Md.
Huron Industries, Inc., Alpena, Mich.
Link-Belt Co., Chicago, Ill.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Roebling's, John A., Sons Co., Trenton, N.J.
Sackett, H. B., Screen & Chute Co., Chicago.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Screens, Wire and Perforated Metal

Cambridge Wire Cloth Co., Cambridge, Md.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Harrington & King Perforating Co., The, Chicago, Ill.
Johnston & Chapman Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Screw Blanks

(See "Blanks, Nut and Screw")

Screw Machines

(See "Machines, Screw")

Screw (Cap) Threading Machines

(See "Machines, Threading, Bolt and Cap Screw")

Screwdriver Bits

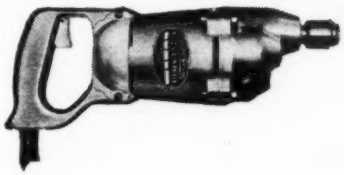
American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Independent Pneumatic Tool Co., Chicago.
Irwin Auger Bit Co., Wilmington, Ohio.
Johnson, William, Inc., Newark, N. J.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Schauer Machine Co., The, Cincinnati, O.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.

Screwdrivers

American Saw & Mfg. Co., Springfield, Mass.
American Swiss File & Tool Co., Elizabeth, N. J.
Atlas Press Co., Kalamazoo, Mich.
Barcalo Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

"Van Dorn"

PORTABLE ELECTRIC SCREWDRIVERS



Nos. 12 and 22 Positive Clutch Screwdrivers

No. 31 Torsimeter Adjustable Clutch Screwdriver

The
VAN DORN ELECTRIC TOOL CO.
TOWSON, MD.

Evansville Tool Works, Inc., Evansville, Ind.
Forged Steel Products Co., Newport, Pa.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hinsdale Mfg. Co., Chicago, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Ruleta Co., Inc., The, New York, N. Y. (Jewelers')
Sargent & Co., New Haven, Conn.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Trimont Mfg. Co., Roxbury, Boston.
Tuck Mfg. Co., Brockton, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.

WHALE SPIRAL SCREW DRIVERS

A Quality Tool—Does Everything
Chrome-nickel-molybdenum blades

The useless, expensive reversible feature has been eliminated—reducing cost. It is impractical to push against a screw coming out.
Spiral screw drivers are used rigid to take out screws. The Whale is made rigid by holding the chuck in left hand, turning the handle toward you with the right hand. Three sizes.

The Forsberg Mfg. Co.
Bridgeport, Conn., U. S. A.

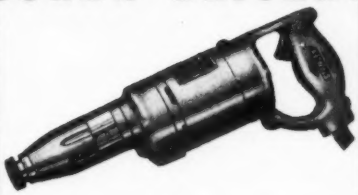
Screwdrivers, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Haskins, R. G., Co., Chicago, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Irwin Auger Bit Co., Wilmington, Ohio.
Louisville Electric Manufacturing Co., Louisville, Ky.
Milwaukee Electric Tool Corp., Milwaukee.
Schauer Machine Co., The, Cincinnati, O.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Screwdrivers, Electricians'

American Swiss File & Tool Co., Elizabeth, N. J.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hinsdale Manufacturing Co., Chicago, Ill.
Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.

STANLEY Electric SCREW DRIVERS



Choice of Two Types

(1) ADJUSTABLE TENSION CLUTCH stops blade as soon as screw head is "seated". Three sizes: Capacities from No. 4 to No. 16 screws in hardwood, nuts up to ⅜" bolt size.

(2) POSITIVE CLUTCH stops blade when forward pressure is released. Two sizes: Capacities No. 12-2" and No. 16-3¼" screws in hardwood, nuts up to ⅜" bolt size.

Write for catalog which describes their many special features.

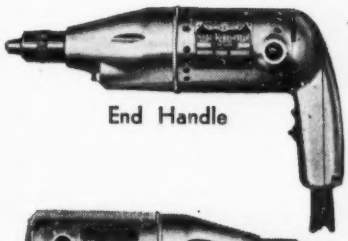
STANLEY ELECTRIC TOOL DIVISION
The Stanley Works
141 Elm Street New Britain, Conn.

STANLEY Electric TOOLS

BLACK & DECKER

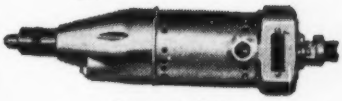
PORTABLE ELECTRIC SCREWDRIVERS

No. 31 Torsimeter



End Handle

Side Handle



Bonnet Grip

The right tool for every job

•

Positive or Adjustable Clutches

For uniform screwdriving in metal or wood

•

Nos. 12 and 22 Screwdrivers

The
Black & Decker Mfg. Co.
TOWSON, MD.

UMI

Screwdrivers, Offset

American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Johnson, William, Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Strand, N. A., & Co., Chicago, Ill.
Tuck Mfg. Co., Brockton, Mass.
Vichek Tool Co., The, Cleveland, Ohio.

Screwdrivers, Power

(See "Machines, Screwdriving")

Screwdrivers, Ratchet

American Swiss File & Tool Co., Elizabeth, N. J.
Atlas Press Co., Kalamazoo, Mich.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

Screwdrivers, Screw Holding

North Bros. Mfg. Co., Philadelphia, Pa.

Screwdrivers, Spiral

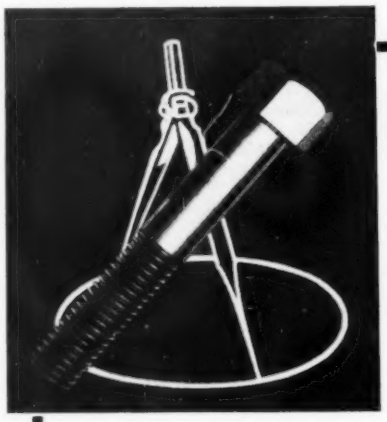
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

Screws, Bench

Cincinnati Tool Co., The, Cincinnati, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
National Screw & Mfg. Co., The, Cleveland.
Peck, Stow & Wilcox Co., Southington, Conn.
Rock Island Mfg. Co., Rock Island, Ill.
Sargent & Co., New Haven, Conn.

Screws, Brass

American Screw Co., Providence, R. I.
Atlantic Screw Works, Hartford, Conn.
Atlas Bolt & Screw Co., The, Cleveland.
Bridgeport Screw Co., Bridgeport, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Millidale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Harper, H. M., Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Holo-Krome Screw Corp., The, Hartford, Conn.



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New England Screw Co., Boston, Mass.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Rockford Screw Products Co., Rockford Ill.
Sargent & Co., New Haven, Conn.
Scovill Mfg. Co., Waterbury, Conn.
Southington Hardware Co., Southington, Conn.
United Screw & Bolt Corp., Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Whitney Screw Co., Nashua, N. H.

Screws—Cap, Machine and Set

Acme Machine Products Co., Muncie, Ind.
Allen Mfg. Co., The, Hartford, Conn.
American Cap & Set Screw Co., Waukegan, Ill.
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Chandler Products Corp., Cleveland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Millidale, Conn.
Cleveland Cap Screw Co., The, Cleveland, Ohio. (Cap and set only)
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp), Cleveland, Ohio.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.

(Continued on page 290)

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BRASS BRONZE
EVERDUR
Cap and Set Screws
Machine Screws
Thumb Screws
Knurled Screws
Complete stock of all non-ferrous cap screws. Special sizes and types furnished promptly to order.
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H. M. HARPER COMPANY
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SCREWS BOLTS NUTS
A COMPLETE LINE OF STANDARD THREADED PRODUCTS

Cap Screws	Carriage Bolts	Machine Screw Nuts
Set Screws	Machine Bolts	Semi-Finished Nuts
Wood Screws	Lag Bolts	Cold Punched Nuts
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Sheet Metal Tapping Screws	Sink Bolts	Knurled Nuts
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Ready for immediate shipment to you today—we can fill your orders for Hexagon, Filister, and Flat Head cap screws; Square Head and Headless set screws, Studs, Carriage and Machine Bolts and Nuts—out of stock. Cap screws are full finished—and that means finished all over. Made by the Kaufman Process, *patented*, our products have much greater tensile strength, and far greater accuracy of threads, than ordinary commercial screws and bolts. Packed in strong cartons, with legible and attractive labels, Cleveland Cap Screw products are stocked in a full list of sizes, American Fine and Coarse threads. Ask for Catalog D and our current Discount schedules.

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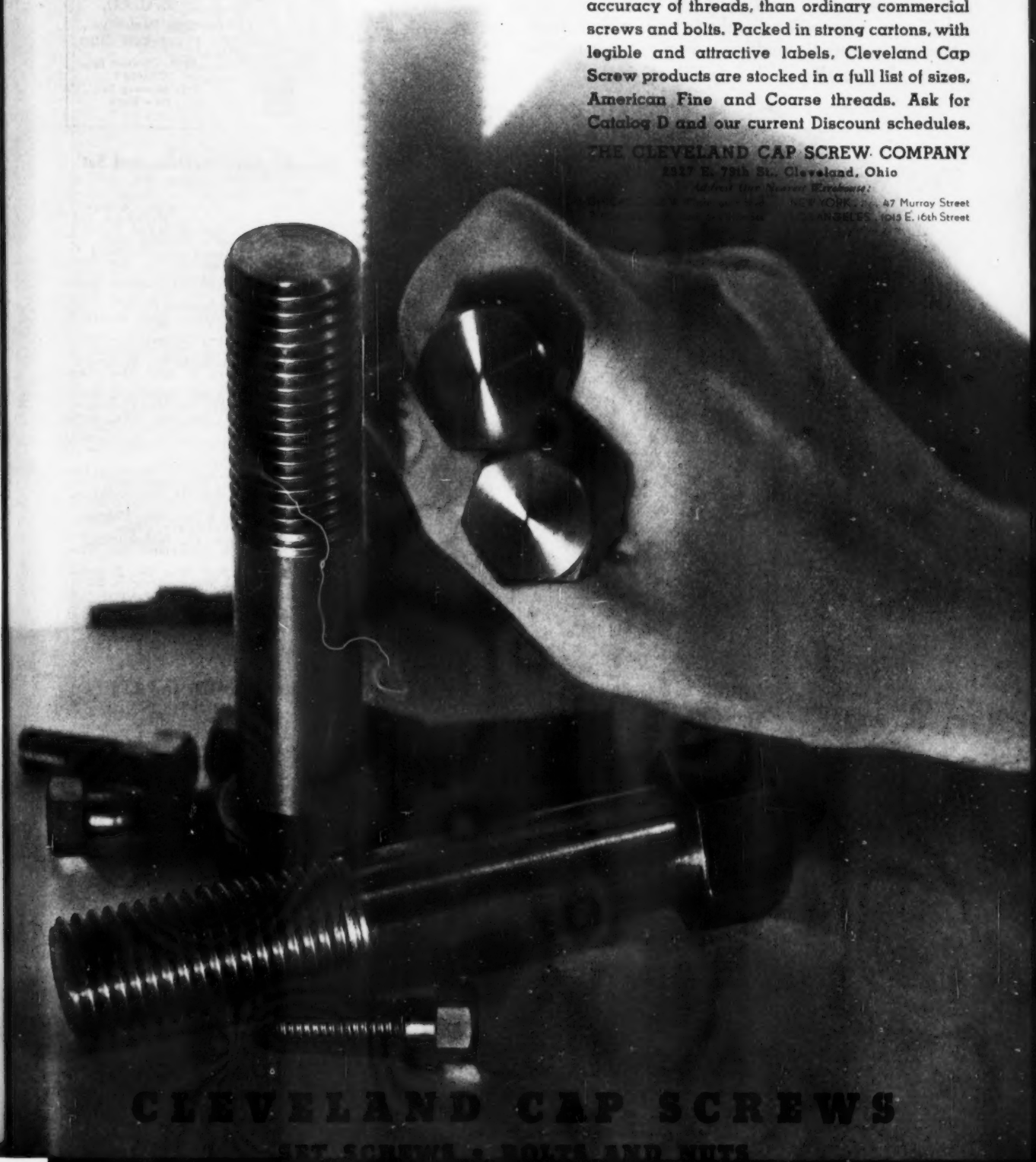

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SET SCREWS • BOLTS AND NUTS

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MILLED SCREW MACHINE PRODUCTS

Our line is Complete—

Our line of milled screw machine products covers all requirements for cap and set screws, coupling bolts, milled studs, Dardelet thread screws, and upset head products. Complete stocks insure prompt delivery. Ottemiller products are milled from bar or rod on modern automatic multiple spindle screw machines.

Write for catalog and distributors' terms.

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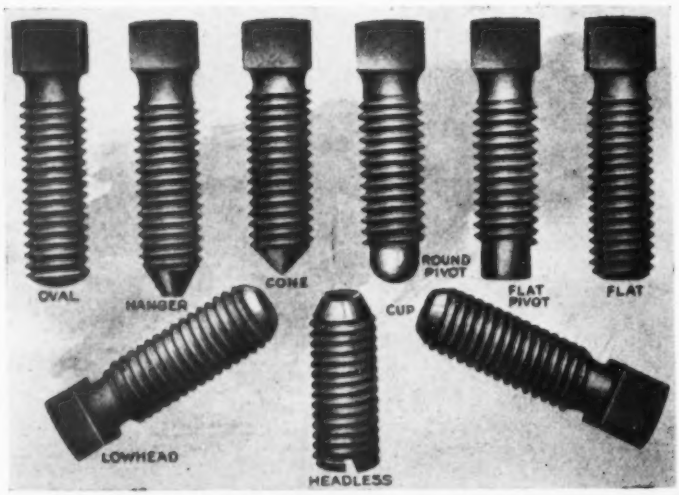
YORK, PA.



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Standard
Special

THE MONARCH CAP SCREW & MFG. CO.
5906 Park Ave., CLEVELAND, OHIO
34 N. Clinton St., Chicago
74 Murray St., New York

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(Continued from page 288)

Eagle Lock Co., Terryville, Conn.
Economy Machine Products Co., Chicago.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Holo-Krome Screw Corp., The, Hartford, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Lamson & Sessions Co., The, Cleveland, O.
Mid-West Screw Products Co., St. Louis.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scovill Mfg. Co., Waterbury, Conn.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Screws, Coach and Lag

Atlas Bolt & Screw Co., The, Cleveland, O.
Bartlett Mfg. Co., Detroit, Mich.
Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Chase Brass & Copper Co., Waterbury, Conn.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp.. Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.

Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Wire Products Co., St. Louis, Mo.

Screws, Collar

Armstrong Mfg. Co., Bridgeport, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Millidale, Conn.
Everitt Co., The, Boston, Mass.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Screws, Drive

American Screw Co., Providence, R. I.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Millidale, Conn.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hillwood Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y. (Hardened metallic)
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.

Screws, Hand

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.

Screws, Hanger

Atlas Bolt & Screw Co., The, Cleveland, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Columbus Bolt Works Co., The, Columbus, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.

Screws, Headless

Allen Mfg. Co., The, Hartford, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Economy Machine Products Co., Chicago.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Holo-Krome Screw Corp., The, Hartford, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Lamson & Sessions Co., The, Cleveland, O.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Parker-Kalon Corp., New York, N. Y. (Including hollow headless)
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
United Screw & Bolt Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Screws, Hook and Eye

California Screw Co., San Francisco, Calif.
Everitt Co., The, Boston, Mass.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Screws, Jack

(See "Jackscrews")

Screws, Lag

(See "Screws, Coach and Lag")

Screws, Long

(See "Long Screws")

Screws, Machine

(See "Screws—Cap, Machine and Set")

Screws, Press

Adjustable Clamp Co., Chicago, Ill.
California Screw Co., San Francisco, Calif.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Tally-Meter Co., Norwich, Conn.

Screws, Self-Tapping

Elco Tool & Screw Corp., Rockford, Ill.
Parker-Kalon Corp., New York, N. Y.
Shakeproof Lock Washer Co., Chicago, Ill.

Screws, Set and Cap

(See "Screws—Cap, Machine and Set")

Every Effort Has Been Made

to Make

The Directory Edition

as Complete and Up-to-date as Possible

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In Such Cases, Write

MILL SUPPLIES

And We Will Do Everything We Can to Secure It for You

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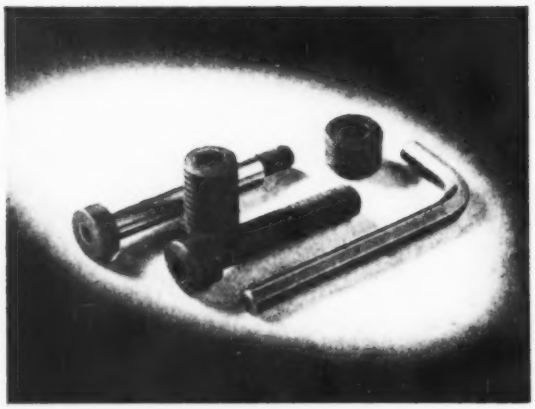
Socket Screws



HOLO-KROME FIBRO FORGED TRADE MARK SCREWS

"100% Distributor Distribution"
The Holo-Krome Policy

Selective Distribution — definite Sales Research and Sales Building Plans—Custom Built Literature—Missionary Effort —National Advertising in Selected Publications—Planned and Directed Sales Effort that Materially Aids Holo-Krome Distributors. These activities plus TENTOR FIBRO FORGED Screws—(patented by Holo-Krome) are the reasons for the Distributor "Swing to Holo-Krome".

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HARTFORD . . . . . CONNECTICUT

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Write Holo-Krome today. Let them show you how you can capitalize on their distributor sales program.

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Bristol Co., The, Waterbury, Conn.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Economy Machine Products Co., Chicago.
Hartford Machine Screw Co., Hartford.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Holo-Krome Screw Corp., The, Hartford, Conn.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Rockford Screw Products Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Screws, Sheet Metal

American Screw Co., Providence, R. I.
Elco Tool & Screw Corp., Rockford, Ill.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Rockford Screw Products Co., Rockford, Ill.

Screws, Shoulder, Socket Head

Allen Mfg. Co., The, Hartford, Conn.
Chicago Screw Co., The, Chicago, Ill.
Economy Machine Products Co., Chicago.
Hartford Machine Screw Co., Hartford.
Holo-Krome Screw Corp., The, Hartford, Conn.
Parker-Kalon Corp., New York, N. Y.
Red Devil Manufacturing Co., Palatine, Ill.
Rockford Screw Products Co., Rockford, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Screws, Thumb

American Screw Co., Providence, R. I.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Corbin Screw Corp., The, New Britain, Conn.
Eberhard Mfg. Co., Cleveland, Ohio.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
National Screw & Mfg. Co., The, Cleveland, Ohio.
New England Screw Co., Boston, Mass.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
United Screw & Bolt Corp., Cleveland, O.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
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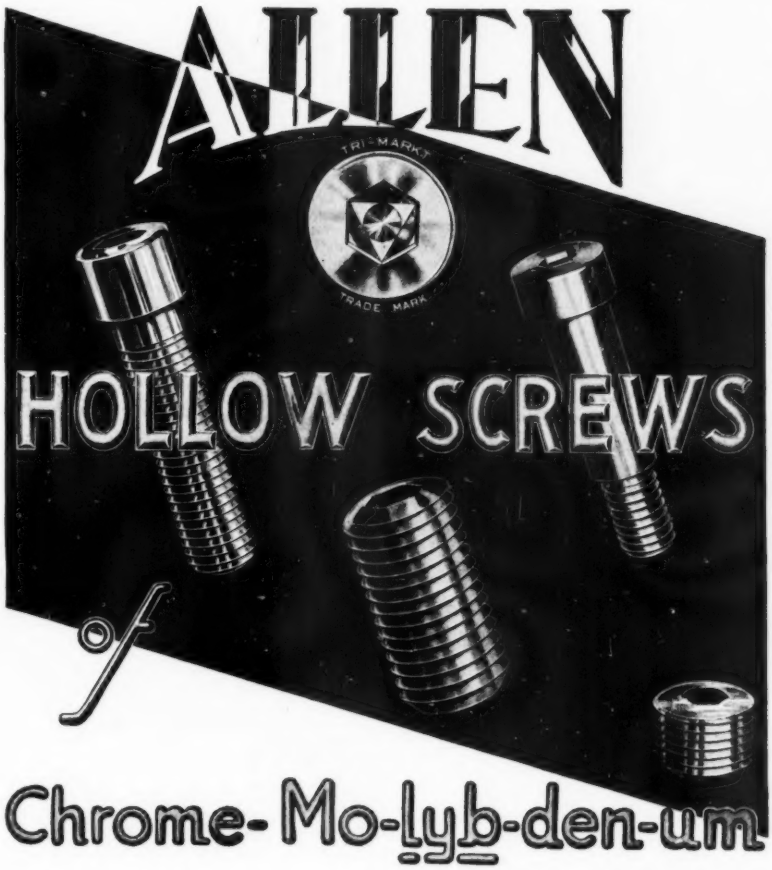

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Ryerson, Joseph T., & Son, Inc., Chicago.
Whitney Metal Tool Co., Rockford, Ill.

Shears, Metal Cutting, Rotary

Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Peck, Stow & Wilcox Co., Southington, Conn.
Quickwork Co., The, Chicago, Ill.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wave Cut File & Tool Corp., New York.

STANLEY UNISHEARS

The Electrically Driven

HAND SHEARS

• The ideal tool for cutting sheet iron, corrugated metal, wire mesh, fibre, leather, mica, and many other sheet materials — without burr or distortion.

• 3 portable and 6 stationary models with capacities from 18 gauge hot rolled steel or galvanized iron to ¼" boiler plate.

• Write for details.

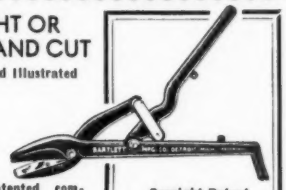
STANLEY ELECTRIC TOOL DIVISION
The Stanley Works
141 Elm Street New Britain, Conn.

STANLEY *Electric* TOOLS

BARTLETT BENCH SHEARS

RIGHT OR LEFT HAND CUT

Right Hand Illustrated



Searight Patent

★ have patented compound lever principle. Made of well designed steel casting with all parts interchangeable for duplicate shears. Blades are solid crucible tool steel ⅜" thick and can be removed for sharpening. Run full length of jaw and cut true to point. Cuts 12 ga. steel easily and will handle full sheet with no trouble. Surpasses any shear on market for heavy cutting. Get full particulars on this and other Bartlett Products.

Bartlett Manufacturing Co.
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Excelsior Tool and Machine Co., East St. Louis, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Libert Machine Co., Green Bay, Wis.
Quickwork Co., The, Chicago, Ill.
Rock River Machine Co., Janesville, Wis.
Pels, Henry, & Co., Inc., New York, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.

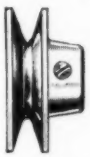
Shears, Tinners'

(See "Snips or Shears, Tinners' ")

Sheaves, Rope, Power Transmission

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul.
American Steel & Wire Co., Chicago, Ill.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Boston & Lockport Block Co., East Boston.
Chicago Belting Co., Chicago, Ill.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Michigan Engine Valve Co., Detroit, Mich.
Murray, D. J., Mfg. Co., Wausau, Wis.
Nice Ball Bearing Co., Philadelphia, Pa.
Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago.
Roebling's, John A., Sons Co., Trenton.
Starline, Inc., Harvard, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Block Co., Lockport, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

CHICAGO
DIE CAST SHEAVES



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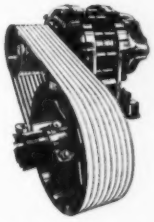
American Hoist & Derrick Co., St. Paul.
American Steel & Wire Co., Chicago, Ill.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Boston & Lockport Block Co., East Boston, Mass.
Channon, J. H., Corp., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Klein, M., & Son, Chicago, Ill.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Torrey Roller Bushing Works, Bath, Me.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Sheaves, "V" Belt

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul.
American Pulley Co., The, Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Congress Tool & Die Co., Detroit, Mich.
Dayton Rubber Mfg. Co., The, Dayton, O.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Foote Gear Works, Inc., Cicero, Ill.
Gates Rubber Co., The, Denver, Colo.
Illinois Gear & Machine Co., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Maurey Mfg. Corp., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Nice Ball Bearing Co., Philadelphia, Pa.
Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., Indianapolis, Ind.

(Continued on page 298)

TEXROPE DRIVES



TEXROPE DRIVES offer power transmission that may be adapted to machinery mountings in any direct position. They eliminate shut-downs, are 98.9% efficient, require no bolt dressing or lubrication, are unaffected by dirt or moisture, are vibrationless, slipless and silent. Texrope Drives are built in ranges from ½ to 2,000 H. P. and in speed ratios from 1 to 1, to 10 to 1 in all popular motor ratings.

TEXROPE V-BELTS These belts, made for Allis-Chalmers by the B.F.Goodrich Rubber Co., are scientifically designed to withstand flexing and are formed in precisely machined moulds. The extreme accuracy of both Texrope Sheaves and V-Belts combine to give a very high degree of efficiency and long life.

DURO-BRACE SHEAVE The outside walls of this new sheave are reinforced with convex steel plates which so greatly increase their strength as to eliminate distortion, even under extreme overloads—thus giving a true-running, vibrationless drive always.

VARI-PITCH SHEAVE The Vari-Pitch Texrope Sheave represents a vital new development in power transmission. In this new sheave, by a simple adjustment which takes but a few moments, the pitch can be altered so as to give a variation in speed of from 15 to 25 per cent.

STRAITLINE MOTOR BASE With the new Straitline Automatic Ball Bearing Motor Base the finest adjustments are possible and easy to accomplish—all you do is turn a hand-wheel. The indicator dial, on this new motor base, tells you exactly what your tension is at all times and you can make your adjustment while running. This base eliminates all guesswork.

ALLIS-CHALMERS MFG. CO.
MILWAUKEE, WISCONSIN

TEXROPE DRIVES

PYOTT Vee Tex **SHEAVES**

SEMI-STEEL

Guaranteed Dimensions

Sheaves — Belts — Complete drives

Semi-steel sheaves and Condor Vee Belts assure perfect drives. A complete catalog of engineering data and price lists on application.
Manufacturers of the Vee Tex line of semi-steel interchangeable bushing stock sheaves.

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An Order for
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MAUREY LINE!

√ Check these selling points

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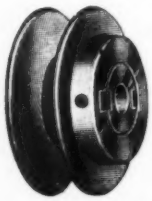
- Heavy rolled edges and special welded construction give extra strength.
- Solid steel or malleable iron hubs assure true running under all conditions.
- All pulleys are attractively finished.
- Maurey makes the largest, most complete line of single-groove V sheaves.
- Maurey distributors operate with complete protection. Fast turnover and our prompt service make small stocks show attractive profits. Investigate this line today!



The Maurey Variable-Pitch Diameter V-Pulley gives speed variations of as much as 30 per cent when used with any fixed-diameter pulley.

All Maurey pulleys are supplied in an attractive durable silver aluminum finish.

MAUREY MANUFACTURING CORP.
2907-15 So. Wabash Ave., Chicago, Ill.

Sheaves, "V" Belt

(Continued from page 297)

Sutorbilt Corp., Los Angeles, Calif.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Sheaves, Variable Diameter

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Maurey Manufacturing Corp., Chicago, Ill.
Ohio Valley Pulley Works, The, Division Browning Manufacturing Co., Inc., Maysville, Ky.

Sheaves, Wire and Manila Rope

American Hoist & Derrick Co., St. Paul.
American Steel & Wire Co., Chicago, Ill.

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V-BELT SHEAVES
CAST IRON & PRESSED STEEL
SUPERIOR-
BETTER SERVING
SHEAVES
NEW DATA
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FOR IT

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INDIANAPOLIS, INDIANA

BROWNING
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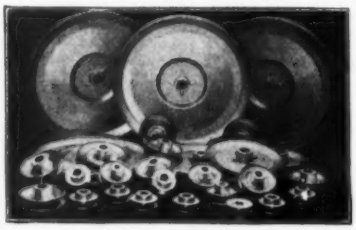

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HEAVY DUTY
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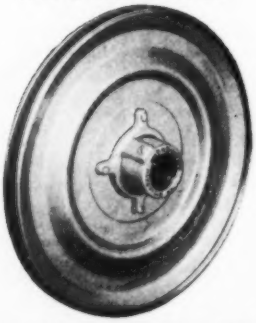


Ohio Valley Pulley Works
Div.—Browning Mfg. Co.
Maysville, Ky.

Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Boston & Lockport Block Co., East Boston.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Mason, Volney W., & Co., Boston, Mass.
Medart Co., St. Louis, Mo.
Nice Ball Bearing Co., Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Upson-Walton Co., The, Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Williamsport Wire Rope Co., Williamsport, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Shelving, Steel, Shop and Warehouse

Angle Steel Stool Co., Plainwell, Mich.
Art Metal Construction Co., Jamestown, N. Y.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Heller, W. C., & Co., Montpelier, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Warren, J. D., Mfg. Co., Montpelier, Ohio.

Shields, Expansion

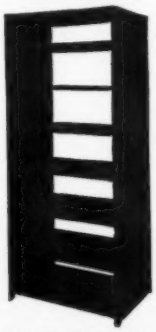
Brohard Co., The, Philadelphia, Pa.
Chicago Expansion Bolt Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Rawlplug Co., Inc., The, New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

Shields, Eye

Buegeleisen, Harry, Brooklyn, N. Y.
Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Delta Mfg. Co., Milwaukee, Wis.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, Ohio.
Shuron Optical Co., Inc., Geneva, N. Y.
Sight Feed Generator Co., Richmond, Ind.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Weldit Acetylene Co., Detroit, Mich.

Shields, Face, Welders'

Air Reduction Sales Co., New York, N. Y.
Buegeleisen, Harry, Brooklyn, N. Y.
Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Hobart Bros. Co., Troy, Ohio.
Lincoln Electric Co., The, Cleveland, Ohio.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, Ohio.
Sight Feed Generator Co., Richmond, Ind.
Weldit Acetylene Co., Detroit, Mich.



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MILL SUPPLIES
"The Magazine for Distributors and Their Salesmen"

Shields, Hand, Welders'

Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Frasse, Peter A., & Co., Inc., New York.
General Electric Co., Schenectady, N. Y.
Hobart Bros. Co., Troy, Ohio.
Lincoln Electric Co., The, Cleveland, Ohio.
Miller Electric Mfg. Co., Appleton, Wis.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, Ohio.
Strauss & Buegeleisen, Brooklyn, N. Y.
Weldit Acetylene Co., Detroit, Mich.

Shifters, Belt

Bond Foundry and Machine Co., Manheim, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Reznor Mfg. Co., Mercer, Pa.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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Laminated Shim Co., Inc., Long Island City, N. Y.
Victor Manufacturing & Gasket Co., Chicago, Ill.

Shims, Rail

Laminated Shim Co., Inc., Long Island City, N. Y.

Shingles, Metal

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Wheeling Corrugating Co., Wheeling, W. Va. (Galvanized steel and tin)

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Harker Mfg. Co., Cincinnati, Ohio.
Mine Safety Appliances Co., Pittsburgh.
Safety Equipment Service Co., Cleveland.

Shoes, Pipe

Chase Brass & Copper Co., Waterbury, Conn.
Marion Malleable Iron Works, Marion, Ind.

Shoes, Protective, Workmen's

Chicago Eye Shield Co., Chicago, Ill.
Safety Equipment Service Co., Cleveland.
Safety First Shoe Co., Holliston, Mass.

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Simply pull the thin shim stock through the slot and cut it off!

These handy cartons of thin brass or steel shim stock will save time and trouble AND PREVENT WASTE in every tool room, maintenance and repair shop. Precision shim stock . . . thicknesses from .001" to .015"; strips 6" x 100".

(Shim brass and steel also supplied in rolls 6" wide and sold by weight.)

SOLD THROUGH MILL SUPPLY HOUSES
A complete line of shim stock and arbor spacers.

LAMINATED SHIM COMPANY, INC.
LONG ISLAND CITY NEW YORK
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Shovels, Scoops and Spades

American Fork & Hoe Co., Cleveland, Ohio.
Ames-Baldwin-Wyoming Shovel Co., Parkersburg, W. Va.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Plumbers' boring spades)
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The INDEPENDENT LINE

INGERSOLL
XTRA QUALITY
SHOVELS
SPADES...SCOOPS

MADE EXCLUSIVELY OF TEM-CROSS STEEL

"The Independent Line"

ALL Ingersoll Shovels are made from a special processed steel, rolled in our own mills. As the world's largest manufacturers of discs for plows, harrows and grain drills, we have developed a special steel of unmatched efficiency in handling soil. This Special Process Steel has an interlocking mesh-grain structure, which makes splitting practically impossible. It is unusually tough, light in weight, and holds its cutting edge. This great improvement in shovel steel is quickly evident to users of Ingersoll Shovels. We call this new steel development—

TEM-CROSS Trade Mark
INGERSOLL PROCESS STEEL

Welded Plain Back Dee Handle Square Point Shovels

No. 700

Plain Back Square Point Shovels with Wood or Steel Split Dee Handles. (Handles 26½" out from shoulder.)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 2	9¾" x 11¾"	58 lbs.
No. 3	10" x 12¼"	60 lbs.
No. 4	10½" x 12¾"	62 lbs.

Welded Plain Back Long Handle Round Point Shovels

No. 703

Regular Weight Long Handle. Round Point Plain Back Shovels. (Handles 51" out from shoulder.)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 2	9" x 12"	56 lbs.
No. 3	9¼" x 12⅜"	58 lbs.
No. 4	9½" x 12¾"	60 lbs.
	Extra Light Weight	
No. 2XL	9" x 11½"	48 lbs.

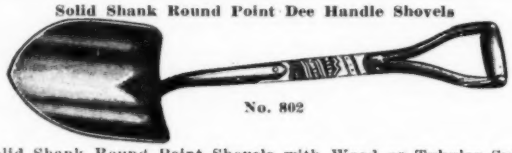
Hollow Back Coal Shovels

No. 966

Wood or Tubular Split Dee Handles. Corrugated Blade. (Handles 27" out from shoulder.)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 1	12¾" x 13¾"	60 lbs.
No. 2	13" x 14½"	63 lbs.
No. 4	13¾" x 15¼"	69 lbs.

Solid Shank Round Point Dee Handle Shovels



No. 802

Solid Shank Round Point Shovels with Wood or Tubular Split Dee Handles. (Handles 27" out from shoulder.)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 2	9" x 12"	55 lbs.
No. 3	9⅝" x 12⅞"	58 lbs.
No. 4	10" x 13⅜"	61 lbs.

Solid Shank Square Point Long Handle Shovels

No. 801

(Handles 49" out from shoulder)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 2	9⅞" x 11¾"	56 lbs.
No. 3	10¼" x 12⅜"	59 lbs.
No. 4	10¾" x 12⅞"	62 lbs.
	Extra Light Weight	
No. 2XL	9⅞" x 11⅞"	50 lbs.

Hollow Back Breakdown Scoops

No. 984

Wood or Tubular Split Dee Handles with Diamond Points and Turned Steps. (Handles 27" out from shoulder.)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 2	10¾" x 15"	57 lbs.
No. 5	11¼" x 16¼"	65 lbs.
No. 7	11¾" x 17"	69 lbs.

Hollow Back Scoops, Dee Handle (Eastern Pattern)

Hollow Back Eastern Pattern Scoops with Wood or Tubular Split Dee Handles. Corrugated Blades. Also made with long handles.

No. 954 (for Eastern Pattern)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 2	10¾" x 15"	60 lbs.
No. 4	11¼" x 15½"	64 lbs.
No. 5	11½" x 16"	68 lbs.
No. 6	11⅝" x 16½"	70 lbs.
No. 7	11¾" x 17"	72 lbs.

No. 960

Hollow Back Scoops, Dee Handle (Western Pattern)

Hollow Back Western Pattern Scoops with Wood or Tubular Split Dee Handles. Corrugated Blades. Also made with long handles.

No. 960 (for Western Pattern)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 6	13" x 16"	66 lbs.
No. 8	13½" x 17"	70 lbs.
No. 10	14" x 18"	74 lbs.
No. 12	14¾" x 19"	78 lbs.
No. 14	15¼" x 20"	82 lbs.

INGERSOLL *Shovels*

"THE INDEPENDENT LINE"

THE Ingersoll Steel & Disc Division of Borg-Warner Corporation operates its own steel mills. Therefore, when you specify any one of the six Ingersoll Brands shown by the labels below, you are assured of a product that is completely under the manufacturing control of this Company. Uniform high quality and top value at the price may be depended upon in Ingersoll Shovels of all types and grades. On all orders specify Ingersoll Shovels, and give your customers the benefit of the better service and satisfaction they give.

Plain Back Garden Spades

No. 724

Wood or Tubular Split Dee Handles. (Handles 27" out from shoulder.)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 2	7½" x 12"	58 lbs.

Plain Back Ladies' or Auto Campers' Shovels

No. 716-L

Tubular Split Dee Handles. Length overall, 36". Blade lift, 6½".

Size	Blade Dimensions	Approx. Weight per Doz.
No. 0	8" x 10"	45 lbs.

Hollow Back Round Point Long Handle Shovels

No. 903

Turned Shoulder and Long Sockets for added strength and balance. (Handles 48" out from shoulder.)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 2	9" x 12"	50 lbs.
No. 3	9½" x 12½"	53 lbs.
No. 4	10" x 13"	56 lbs.

Hollow Back Square Point Dee Handle Shovels

No. 900

Turned Shoulder and Long Sockets for added strength and balance. Wood or Tubular Split Dee Handles. (Handles 27" out from shoulder.)

Size	Blade Dimensions	Approx. Weight per Doz.
No. 2	9½" x 11¾"	52 lbs.
No. 3	10" x 12¼"	55 lbs.
No. 4	10½" x 12¾"	58 lbs.

INGERSOLL FACTORY BRAND LABELS

NEW . . . ATTRACTIVE . . . DISTINCTIVE

These labels make it easy to identify the particular brand or grade of Ingersoll Shovels wanted. In addition to brands shown here, we continue to manufacture and supply the trade with the old established reliable Shovels, Spades and Scoops known to the trade as—

"X-tra Quality Ingersoll Special" (Special Grade)
The Indiana "X-tra Quality" (Grade A)
"New Castle Solid Cast Steel" (Grade B)
"Solid Steel Matchit Brand" (Grade C)
"Solid Steel Trojan Brand" (Grade C)

All grades of Ingersoll Shovels, Spades and Scoops are **heat-treated** (except "C" Grade and lower) without any extra charge.

All Ingersoll Shovels, Spades and Scoops are guaranteed (except "C" Grade and lower) against defects in material and workmanship.

INGERSOLL STEEL & DISC DIVISION

Borg-Warner Corporation

New Castle, Ind.

UMI

Shovels, Scoops and Spades

(Continued from page 299)

Pfeifer, John, & Co., Philadelphia, Pa.
Wirt & Knox Co., Philadelphia, Pa. (Snow pushers)
Wood Shovel & Tool Co., Piqua, Ohio.

Shovels and Forks, Concrete

American Fork & Hoe Co., Cleveland, Ohio.
Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
Wood Shovel & Tool Co., Piqua, Ohio. (Shovels only)

Shovels, Power, for Unloading Cars

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul.
Chain Belt Co., Milwaukee, Wis.
Harnischfeger Corp., Milwaukee, Wis.
Jeffrey Manufacturing Co., Columbus, O.
Link-Belt Co., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Sifter Brush Belting and Brushes

Buffalo Weaving & Belting Co., Buffalo, N. Y.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Victor Balata & Textile Belting Co., New York, N. Y.

Sight Feeds, Oil, Independent

Advance Packing & Supply Co., Chicago.
American Injector Co., Detroit, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Nugent, Wm. W., & Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.

Signs, Danger

Blatchford Corp., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Safety Equipment Service Co., The, Cleveland, Ohio.
Safety Fire Extinguisher Co., The, New York, N. Y.

Sinking Machines, Die

(See "Machines, Die Sinking")

Siphons

(See "Syphons")

Sirens, Electric

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Bullard, E. D., Co., San Francisco, Cal.
Federal Electric Co., Inc., Chicago, Ill. (Apparatus and general alarm)
Sterling Siren Fire Alarm Co., Inc., The, Rochester, N. Y.

Skids, Wagon

American Hoist & Derrick Co., St. Paul.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Lansing Co., Lansing, Mich.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Service Caster & Truck Co., The, Albion, Mich.
West Bend Equipment Corp., West Bend, Wis.

Sledges, Mauls or Striking Hammers

Chicago Rawhide Mfg. Co., The, Chicago.
Dallett Co., The, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Hellenberg, J. B., Co., Inc., The, Coldwater, Mich. (Wood Foundry Mauls)
Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Lignum-Vitae Products Corp., Jersey City, N. J.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Swett, A. L., Iron Works, Medina, N. Y.

Sleeves, Dredging

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Whitehead Bros. Rubber Co., Trenton, N. J.

Sleeves, Drill

(See "Sockets and Sleeves, Drill")

Sleeves, Pipe

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
Northwest Lead Co., Seattle, Wash.

Slings, Chain

American Chain Co., Inc., Bridgeport, Conn.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dallett Co., The, Philadelphia, Pa.
McKay Co., The, Pittsburgh, Pa.
McMillan's, W. H., Sons, New York, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Round, David, and Son, Cleveland, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Slings, Wire Rope

American Cable Co., Inc., Wilkes-Barre, Pa.
American Steel & Wire Co., Chicago, Ill.
Macwhyte Co., Kenosha, Wis.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Upson-Walton Co., The, Cleveland, Ohio.

Slitting Machines, Metal

(See "Machines, Metal Slitting")

Slotting Machines

(See "Machines, Screw Slotting" and "Machines, Slotting")

Snippers, Woodworking

Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.

Snips or Shears, Tinners'

Bartlett Manufacturing Co., Detroit, Mich.
Barcalo Mfg. Co., Buffalo, N. Y.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Compton, W. H., Shear Co., The, Newark, N. J.
Crescent Tool Co., Jamestown, N. Y.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Grobet File Corp. of America, New York.
Heinisch, R., Sons Works, Newark, N. J.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.

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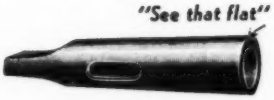

"USE-EM-UP"

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CHICAGO, ILL.

Sandvik Saw & Tool Corp., Minneapolis.
Snap-On Tools, Inc., Kenosha, Wis.
Vichek Tool Co., The, Cleveland, Ohio.
Wave Cut File & Tool Corp., New York.
Wiss, J., & Sons Co., Newark, N. J.

Snubbers, Pressure

Ray Pressure Snubber Co., Charlotte, N. C.

Soap and Cleaners, Hand

Flash Chemical Co., Cambridge, Mass.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Harris, A. W., Oil Co., Providence, R. I.
Pacific Chemical Co., Los Angeles, Calif.
Quigley Co., Inc., New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Skat Co., The, Hartford, Conn.
White & Bagley Co., The, Worcester, Mass.

Soap, Liquid, and Dispensers

Baum's Castorine Co., Rome, N. Y.
Flash Chemical Co., Cambridge, Mass.
Franklin Oil & Gas Co., The, Bedford, Mass.
Imperial Brass Manufacturing Co., Chicago, Ill.
Pacific Chemical Co., Los Angeles, Calif.

Soap, Oil

Baum's Castorine Co., Rome, N. Y.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Franklin Oil & Gas Co., The, Bedford, Ohio.
Harris, A. W., Oil Co., Providence, R. I.
Magie Bros., Chicago, Ill.
Pacific Chemical Co., Los Angeles, Calif.
Sherwin-Williams Co., Cleveland, Ohio.
White & Bagley Co., The, Worcester, Mass.

Soap, Powdered

Baum's Castorine Co., The, Rome, N. Y.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Pacific Chemical Co., Los Angeles, Calif.
Quigley Co., Inc., New York, N. Y.
Skat Co., The, Hartford, Conn.

Sockets and Sleeves, Drill

Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Collis Co., The, Clinton, Iowa.
Glenzer, J. C., Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Sockets, Wire Rope

(See "Fittings, Wire Rope")

Softeners, Water

Crane Co., Chicago, Ill.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Meier Electrical and Machine Co., Indianapolis, Ind.

Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Universal Water Softener, Inc., Green Bay, Wis.

Solder, Aluminum

Allen, L. B., Co., Inc., Chicago, Ill.
Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
American Solder & Flux Co., Philadelphia.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Dockson, C. H., Co., Detroit, Mich.
Everhot Mfg. Co., Maywood, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
Hewitt Metals Corp., Detroit, Mich.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Michigan Smelting & Refining Co., Detroit.
National Lead Co., New York, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Solder, Bar

Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Canfield, M. C., Sons Co., Newark, N. J.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton, Ohio.
Eagle-Picher Lead Co., The, Chicago, Ill.
Everhot Mfg. Co., Maywood, Ill.
Federated Metals Corp., New York, N. Y.
Finn, John, Metal Works, San Francisco.
Frictionless Metal Co., St. Louis, Mo.
Gardiner Metal Co., Chicago, Ill.
Hewitt Metals Corp., Detroit, Mich.
Kester Solder Co., Chicago, Ill.
McGill Mfg. Co., Valparaiso, Ind.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit.
Murphy Metals Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Rochester Lead Works, Rochester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Stanley Rule & Level Plant, New Britain, Conn.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.
Wheeling Corrugating Co., Wheeling, W. Va.

Solder, Brazing

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Federated Metals Corp., New York, N. Y.
Handy & Harman, New York, N. Y.
National Lead Co., New York, N. Y.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Solder, Cast Iron

Allen, L. B., Co., Inc., Chicago, Ill.
Consolidated Metals Corp., Detroit, Mich.
National Lead Co., New York, N. Y.

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Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
American Solder & Flux Co., Philadelphia.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Dunton, M. W., Co., The, Providence, R. I.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
Kester Solder Co., Chicago, Ill.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
National Lead Co., New York, N. Y.
Ruby Chemical Co., The, Columbus, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Solder, Silver

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Dockson, C. H., Co., Detroit, Mich.
Federated Metals Corp., New York, N. Y.
Handy & Harman, New York, N. Y.
Merchant & Evans Co., Philadelphia, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Solder, Wire

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Canfield, M. C., Sons Co., Newark, N. J.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Finn, John, Metal Works, San Francisco.
Gardiner Metal Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Handy & Harman, New York, N. Y.
Hewitt Metals Corp., Detroit, Mich.
Kester Solder Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Murphy Metals Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Rochester Lead Works, Rochester, N. Y.
Torchweld Equipment Co., Chicago, Ill.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Soldering Coppers

(See "Coppers and Irons, Soldering")

Soldering Flux

(See "Flux, Soldering—Paste, Stick and Liquid")

Soldering Outfits, Acetylene or Hydrogen

American Solder & Flux Co., Philadelphia.
Bastian-Blessing Co., Chicago. Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Pittsburgh Thermoline Co., Pittsburgh.
Sight Feed Generator Co., The, Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Torit Manufacturing Co., St. Paul, Minn.
Weldit Acetylene Co., Detroit, Mich.

Soldering Outfits, Gas

American Solder & Flux Co., Philadelphia.
Bastian-Blessing Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hones, Chas. A., Inc., Baldwin, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Soldering Sets

(See "Sets, Soldering")

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(See "Tools, Soldering")

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Cowles Tool Co., Cleveland, Ohio.
Detroit Stamping Co., Detroit, Mich.
Laminated Shim Co., Inc., Long Island City, N Y.
Massachusetts Machine Shop, Inc., Boston.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Sundstrand Machine Tool Co., Rockford, Ill.

Spacers, Pipe

Grabler Mfg. Co., Cleveland, Ohio.

Spades

(See "Shovels, Scoops and Spades")

Spanners, Drop Forged

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Williams, J. H., & Co., New York, N. Y.

Spanners, Hose

Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Kupferle, John C., Foundry Co., St. Louis.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Vulcan Tool Mfg. Co., Quincy, Mass.

Spectacles, Industrial Workers

(See "Goggles and Spectacles, Industrial Workers")

Speed Reducers

(See "Reducers, Speed")

Speeders, Drill

Buffalo Forge Co., Buffalo, N. Y.

Spikes, Boat

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.

Spikes, Railroad Track

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.

Spikes, Wire and Cut

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.

Splicers, Belt

Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.

Splitters, Nut

Carolus Manufacturing Co., Sterling, Ill.
Chicago Belting Co., Chicago, Ill.
Porter, H. K., Inc., Everett, Mass.

Splitters, Wood

Filer & Stowell Co., The, Milwaukee, Wis.
Moore & White Co., The, Philadelphia, Pa.
Porter, H. K., Inc., Everett, Mass.

Sprayers—Asphalt, Oil and Tar

Campbell-Hausfeld Co., The, Harrison, O.
Littleford Bros., Cincinnati, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.

Sprayers, Insecticide, Portable, Electric

Breuer Electric Manufacturing Co., Chicago, Ill.
Clements Mfg. Co., Chicago, Ill.
Farquhar, A. B., Co., Ltd., York, Pa.
Hudson, H. D., Mfg. Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ideal Commutator Dresser Co., Sycamore, Ill.
Metal Specialties Mfg. Co., Chicago, Ill.
Simplex Spray Equipment Co., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Sprayers, Insecticide, Portable, Hand

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Hudson, H. D., Mfg. Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ideal Commutator Dresser Co., Sycamore, Ill.
Saylor-Beall Manufacturing Co., Detroit.

Sprayers, Mine

Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.

Sprayers, Paint, Electric, Portable

Binks Manufacturing Co., Chicago, Ill.
Breuer Electric Manufacturing Co., Chicago, Ill.
Burning Brand Co., Chicago, Ill.
Clements Mfg. Co., Chicago, Ill.
Crown Spray Gun Mfg. Co., Los Angeles.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
DeVilbiss Co., The, Toledo, Ohio.
Electric Sprayit Co., The, Milwaukee, Wis.
Hobart Bros. Co., Troy, Ohio.
Hudson, H. D., Mfg. Co., Chicago, Ill.
Ideal Commutator Dresser Co., Sycamore, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Metal Specialties Mfg. Co., Chicago, Ill.
Milburn, Alexander, Co., The, Baltimore.
Paasche Airbrush Co., Chicago, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago, Ill.
Spray Engineering Co., Somerville, Mass.
Syntron Co., Pittsburgh, Pa.
United States Air Compressor Co., Cleveland, Ohio.

Sprayers, Tree, Whitewash, Etc.

Asch & Co., Inc., New York, N. Y. (Coal sprayers)
Binks Manufacturing Co., Chicago, Ill.
Burning Brand Co., Chicago, Ill.
Campbell-Hausfeld Co., The, Harrison, O.
Chapin, R. E., The, Batavia, N. Y.
Deming Co., The, Salem, Ohio.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Farquhar, A. B., Co., Ltd., York, Pa.
Hudson, H. D., Mfg. Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Spraying Booths, Paint

Binks Manufacturing Co., Chicago, Ill.
Burning Brand Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
DeVilbiss Co., The, Toledo, Ohio.
Kellogg Manufacturing Co., Rochester, N. Y.
Paasche Airbrush Co., Chicago, Ill.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Spray Engineering Co., Somerville, Mass.

Spraying Guns, Paint

(See "Guns, Paint Spraying")

Sprays, Paint

(See "Sprayers" and "Machines and Equipment, Painting and Whitewashing")

Sprays, Water, Automatic

Binks Manufacturing Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.

Spring Winders

(See "Winders, Spring")

Springs, Coil

Cleveland Wire Spring Co., The, Cleveland, Ohio.
Coleman, Allan J., Chicago, Ill.
Crucible Steel Co. of America, New York, N. Y.
Hunter Pressed Steel Co., Lansdale, Pa.
Owen Silent Spring Co., Inc., Bridgeport, Conn.

Springs, Pipe Bending

Bernz, Otto, Co., Inc., Rochester, N. Y.
Cleveland Wire Spring Co., The, Cleveland, Ohio.
Coleman, Allan J., Chicago, Ill.
Crucible Steel Co. of America, New York, N. Y.
Hunter Pressed Steel Co., Lansdale, Pa.
Johnson, William, Inc., Newark, N. J.
Rapid Spring Co., The, Pittsburgh, Pa. (For lead pipe)

Springs, Valve

American Steel & Wire Co., Chicago, Ill.
Cleveland Wire Spring Co., The, Cleveland, Ohio.
Coleman, Allan J., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.

Sprinklers, Fire, Automatic

Central Automatic Sprinkler Co., Philadelphia, Pa.
Grinnell Co., Inc., Providence, R. I.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.

Sprinklers, Irrigation

(See "Nozzles and Sprinklers, Irrigation")

Sprinklers, Lawn

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Goodrich, B. F., Co., The, Akron, Ohio.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Penberthy Injector Co., Detroit, Mich.
Roberts Brass Mfg. Co., The, Detroit.
Thermoid Rubber Co., Trenton, N. J.
Turner Brass Works, The, Sycamore, Ill.

Sprockets

(See "Wheels, Sprocket")

Squares, Adjustable

(Or Double)

Brown & Sharpe Mfg. Co., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.

Squares, Caliper

Brown & Sharpe Mfg. Co., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.

Squares, Carpenters'

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Washburn Co., The, Worcester, Mass.

Squares, Center

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Squares, Combination

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Squares, Diemakers'

Brown & Sharpe Mfg. Co., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Squares, Double

Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.

Squares, Draughtmen's "T"

Brown & Sharpe Mfg. Co., Providence, R. I.
Dietzgen, Eugene, Co., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.
Starrett, L. S., Co., The, Athol, Mass.

Squares, Millwrights'

Brown & Sharpe Mfg. Co., Providence, R. I.

Squares, Mitre

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Lufkin Rule Co., The, Saginaw, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Squares, Try

Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Squares, Universal

Elwell-Parker Electric Co., The, Cleveland.
Lufkin Rule Co., The, Saginaw, Mich.

Squeegees

Buffalo Weaving & Belting Co., Buffalo, N. Y.
Elermann Floor Scraper Co., The, Brooklyn, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Osborn Manufacturing Co., The, Cleveland.

Stack Units

All-Steel-Equip Co., Aurora, Ill.

Stackers

(See "Elevators, Pilers or Stackers, Portable")

Stampings, Steel

American Nut and Bolt Fastener Co., Pittsburgh, Pa.

Globe Machine & Stamping Co., The, Cleveland, Ohio.
Laminated Shim Co., Inc., Long Island City, N. Y.
Master Products Co., The, Cleveland, Ohio.
Philadelphia Steel & Wire Corp., Philadelphia, Pa.
Smith, Thomas, Co., Worcester, Mass.
Steel & Tubes, Inc. (Subsidiary of Republic Steel Corp.), Cleveland, Ohio.
Toledo Pressed Steel Co., The, Toledo, Ohio.
United Screw & Bolt Corp., Cleveland, Ohio.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Stamps, Letter and Figure, Steel

Bethlehem Steel Co., Bethlehem, Pa.
Joslin, A. D., Mfg. Co., Manistee, Mich.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Master Products Co., The, Cleveland, Ohio.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.

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Angle Steel Stool Co., Plainwell, Mich.
Moak Machine & Tool Co., Port Huron, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.

Stands and Pulleys, Band Saw

Covel-Hanchett Co., Big Rapids, Mich.
Delta Mfg. Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Moak Machine & Tool Co., Port Huron, Mich.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Stands, Barrel or Drum

Ingalls Iron Works Co., The, Birmingham, Ala.
Lewis-Shepard Co., Boston, Mass.
Pollard Bros. Mfg. Co., Chicago, Ill.
Safety Equipment Service Co., The, Cleveland, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Stands, Brazing

Turner Brass Works, The, Sycamore, Ill.

Stands, Drill

Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Huot Manufacturing Co., St. Paul, Minn.
National Twist Drill & Tool Co., Detroit.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Stands, Drill, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Clark, James, Jr., Electric Co., Louisville, Ky.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Schauer Machine Co., The, Cincinnati, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Wodack Electric Tool Corp., Chicago, Ill.

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A-S-E Stack Units may be added or subtracted as stock varies. They also provide an excellent handling system by "bringing the storage room to the shop" without necessitating separate containers or additional handling. Waste storage space is eliminated. Open bin-type front makes contents available when units are stacked. Especially suited for storage of small parts. Write for prices and details.

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INCORPORATED
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Stands, Floor, Power Transmission

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Moak Machine & Tool Co., Port Huron, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Stands, Floor, Valve

Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Grinnell Co., Inc., Providence, R. I.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Stands, Grinding Wheel

Atkins, E. C., and Co., Indianapolis, Ind.
Black & Decker Mfg. Co., The, Towson, Md.
Hisey-Wolf Machine Co., The, Cincinnati.
Moak Machine & Tool Co., Port Huron, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Stands, Motor

Champion Blower and Forge Co., Lancaster, Pa.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Sutorbilt Corp., Los Angeles, Calif.

Stands, Mule

Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Stands, Oxygen Tank

All Steel Welded Truck Corp., Rockford, Ill.
Bastian-Blessing Co., Chicago, Ill.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York, N. Y.

Stands, Range Boiler

American Foundry & Mfg. Co., St. Louis.
Gerard Mfg. Co., Dickson City, Pa.
Kupferle, John C., Foundry Co., St. Louis.
Link-Belt Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Murray, J. D., Mfg. Co., Wausau, Wis.

Stands, Tool

(See "Racks and Stands, Tool")

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Height 36 inches
Weight 32 pounds

Goes Anywhere On Any Job

Fold it—take it with you—any place on the job. It's the ideal portable Vise Stand for all classes of work. Takes chain or hinged vise without drilling.

Light, but rigid. Automatic latches hold legs firm—no loose parts. Folds to pass through 16-inch opening. Be sure to get the genuine "HANDY ANDY". It's guaranteed. Order from your jobber or write for descriptive folder.

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Ridge Tool Co., The, Elyria, Ohio.
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Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
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Highland Iron and Steel Co., The, Terre Haute, Ind.
Key Co., East St. Louis, Ill.
Maryland Bolt & Nut Co., The, Baltimore.
Mockbee, C. M., Co., Cincinnati, Ohio.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.

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(See "Machines and Steamers, Thawing, Pipe")

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Crucible Steel Co. of America, New York, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Frasse, Peter A., & Co., Inc., New York.
Harrisburg Steel Corp., Harrisburg, Pa.
Heller Brothers Co., Newark, N. J.
Highland Iron and Steel Co., The, Terre Haute, Ind.
Ingalls Iron Works Co., The, Birmingham, Ala.
Ingersoll Steel & Disc Co., New Castle, Ind.
Inland Steel Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
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Lyon, Conklin & Co., Inc., Baltimore, Md. (Sheet metal)

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Union Drawn Steel Co. (Subsidiary of Republic Steel Corp.), Massillon, Ohio. (Cold finished steel)
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Wheeling Steel Corp., Wheeling, W. Va. (Sheet steel, wire and wire products, pipe, roofing, etc.)
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Steels, Butcher

Cleveland File Co., The, Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Stems, Valve

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Clow, James B., & Sons, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Stenciling Brushes

(See "Brushes, Stencil")

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Market Forge Co., Everett, Mass.
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Matthews, Jas. H., & Co., Pittsburgh, Pa.

Stencils—Copper, Brass and Zinc

Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.

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(See "Bricks and Sticks, Abrasive")

Sticks, Belt, for Putting Belts on Moving Pulleys

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Schieren, Chas. A., Co., New York, N. Y.

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Armstrong Manufacturing Co., Bridgeport, Conn.
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Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass. (Round)
Nye Tool & Machine Works, The, Chicago.
Oster Manufacturing Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.
Winter Brothers Co., Inc., Wrentham, Mass.

Stocks, Die, Electric

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Crane Co., Chicago, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

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Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Crane Co., Chicago, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Nye Tool & Machine Works, The, Chicago.
Oster Manufacturing Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Stocks and Dies, Bolt

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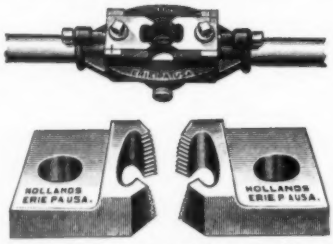
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Champion Blower and Forge Co., Lancaster, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Oster Manufacturing Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., The, Cleveland, Ohio.

HOLLANDS

Adjustable Stocks and Dies



These Dies will start easier, cut better threads and give maximum service.

Interchangeable with all standard makes. Each complete set packed in a strong fibre box.

Left Hand Dies take double list.

Set No.	Pipe Capacity Inches	List Price Set	Stock Only Each	Extra Dies Each	Extra Guide Each
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2AH1	¼ to 1	12.00	4.00	2.00	.40
2AH2	⅛ to 1	14.00	4.00	2.00	.40
2AH3	⅛ to ¾	12.00	4.00	2.00	.40
2AH4	⅜ to 1	10.50	4.00	2.00	.40
2AH5	½ to 1	8.75	4.00	2.00	.40
2AH6	½ to ¾	7.00	4.00	2.00	.40
2½AH1	½ to 1¼	14.00	5.25	2.50	.60
2½AH2	⅜ to 1¼	16.50	5.25	2.50	.60
2½AH3	¼ to 1¼	19.00	5.25	2.50	.60
2½AH4	⅛ to 1¼	21.50	5.25	2.50	.60
2½AH5	½ to 1½	16.50	5.25	2.50	.60
3AH1	1¼ to 2	18.00	7.00	3.50	.75
3AH2	1 to 2	21.00	7.00	3.50	.75
3AH3	¾ to 2	24.00	7.00	3.50	.75
3AH4	½ to 2	27.00	7.00	3.50	.75

Send for Catalog No. 36

HOLLANDS MFG. CO.
ERIE, PA.

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STOCKS & DIES

One man can operate "TOLEDO" tools anywhere and produce smooth, perfect threads easily.

"TOLEDOS" have been recognized by experienced pipe tool users for over thirty years as the finest pipe tools on the market.

A most complete and diversified line of pipe tools, pipe vises, pipe reamers, vise mounts, pipe machines and power drives to operate the large threaders and cutters. Small hand ratchets, light compact easy operating 1" to 2" threaders, and large geared threaders and cutters up to 12".

Catalogue sent on request.

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TOLEDO, OHIO

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Stocks and Dies, in 5 types of stocks. 3 Sets types of Threaders. All with Improved Designs. See our ad under Dies: Pipe.

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Oster Manufacturing Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Walworth Co., New York, N. Y.

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Crane Co., Chicago, Ill.
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Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nye Tool & Machine Works, Chicago, Ill.
Oster Manufacturing Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., The, Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Walworth Co., New York, N. Y.
Whitman and Barnes, Inc., Detroit, Mich.
Winter Brothers Co., Inc., Wrentham, Mass.

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Oster Manufacturing Co., The, Cleveland, Ohio.

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Crane Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
Nye Tool & Machine Works, The, Chicago.
Oster Manufacturing Co., The, Cleveland, Ohio.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Sands Mfg. Co., The, Cleveland, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

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Leach Company, Oshkosh, Wis.
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Plymouth Industries, Inc., Plymouth, Ind.
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(See "Points, Stone")

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Ideal Commutator Dresser Co., Sycamore, Ill.

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Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Norton Co., Worcester, Mass.
Peninsular Grinding Wheel Co., Detroit.
Waltham Grinding Wheel Co., Waltham, Mass.

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Standard Pressed Steel Co., Jenkintown, Pa.
West Bend Equipment Corp., West Bend, Wis.

Stoppers, Boiler Tube

(See "Plugs or Stoppers, Boiler Tube")

Stops, Bench

Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.

Stops, Brine

(See "Cocks or Stops, Brine")

Stops, Corporation and Waterworks

(See "Cocks or Stops, Corporation and Waterworks")

RIDGID

PIPE THREADERS

RIDGID Poster Threaders Nos. 1 (plain die) and 1R (ratchet)

RIDGID Poster Threaders, No. 1 and 1R, have full-floating posts and new type workholder (set to size with knurled ring, then put on pipe, tighten with one screw). Four sets of dies, interchangeable to fit any make of poster die. Threads pipe 1" to 2". List Price—No. 1, $18.00; No. 1R, $22.50.

RIDGID Nos. 65 and 65R Threaders

Threads pipe 1" to 2". List Price—No. 65, plain die, $21.00; No. 65R, ratchet, $28.00.

Thread four sizes of pipe with one set of chasers—true accurate threads, all variations—any pipe. Ratchet thumb-lever opens chasers and reverses ratchet—in one turn. Same new type workholder as No. 1R.

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Segment Holder Assemblies are reversible, especially adapted to work where pipe is close to wall—a marked advantage over other types of threaders.

List Price—No. 30, ⅜" to ¾", $12.00; No. 31, ½" to 1", $14.00.

RIDGID Ratchet Threaders Nos. 5R and 15R

Die heads snap in from either side held by spring ring in ratchet ring—can't fall out. Dies reverse on head for threading pipe close to wall.

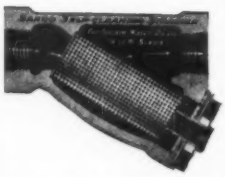
List Price—No. 5R, ⅛" to 1", $24.75; No. 15R, ⅜" to 1¼", $30.00.

Above prices subject to usual trade discounts.

THE RIDGE TOOL CO.
ELYRIA, OHIO, U. S. A.

SARCO

Self-cleaning Strainer



Sarco Strainer is suitable for use on steam, gas, water, oil, etc. It has a cast iron body with perforated cylinder placed at such an angle as to offer minimum obstruction to the flow of gas or liquid, but allowing ample cleaning space. The standard screens are made of perforated brass, but where specified, monel or other metal screens can be supplied to practically any specifications.

Can be placed in horizontal or vertical lines or at any angle. A blow-off connection permits the strainer being cleaned instantly merely by opening the valve.

Made in sizes from ¼ to 8 in.; also furnished with brass bodies, caps and screws in sizes ½ to 1 in. inclusive.

Write for Catalog Z-67.

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183 Madison Ave., New York, N. Y.

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Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Stoves, Babbitt Melting

Bernz, Otto, Co., Inc., Rochester, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Unique Manufacturing Co., Inc., Chicago.

Straightening Machines

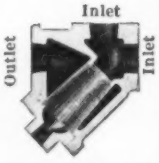
(See "Machines, Bending and Straightening," and "Presses, Straightening")

Strainers, Air and Gas

Curtis Pneumatic Machinery Co., St. Louis, Mo.
Davis Regulator Co., Chicago, Ill.

STRAINERS

Use "Tuway" Strainers on straightway or angle job. No need carrying double stock. For Steam, Air, Gas, Ammonia, Oil, Water, etc. Send for literature.



"Tuway" Strainer
1½" to 2"
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WRIGHT AUSTIN

316 West Woodbridge
DETROIT - - - - - - - - - - MICHIGAN

Fisher Governor Co., The, Marshalltown, Iowa.
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Kieley & Mueller, Inc., New York, N. Y.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Mueller Co., Decatur, Ill.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Sarco Co., Inc., New York, N. Y.
Self Cleaning Strainer Co., Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

Strainers, Brass

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Cambridge Wire Cloth Co., Cambridge, Md.
Clow, James B., & Sons, Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Diamond Iron Works, Inc., Minneapolis.
Fee & Mason Mfg. Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Leslie Co., Lyndhurst, N. J.
Mark, Clayton, & Co., Chicago, Ill.
Michigan Wire Cloth Co., Detroit, Mich.
Mueller Co., Decatur, Ill.
New York Brass Foundry Co., New York.
Penberthy Injector Co., Detroit, Mich.
Perkins Marine Lamp & Hardware Corp., Brooklyn.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rumsey Pump Corp., Seneca Falls, N. Y.
Sarco Co., Inc., New York, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Tryco Products, Inc., Westfield, Mass.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Williams, D. T., Valve Co., The, Cincinnati.
Wright-Austin Co., Detroit, Mich.

Strainers, Cast Iron

Davis Regulator Co., Chicago, Ill.
Economy Pumping Machinery Co., Chicago.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Haydenville Co., The, Haydenville, Mass.
Kaye & MacDonald, Inc., West Orange, N. J.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Rumsey Pump Corp., Seneca Falls, N. Y.
Sarco Co., Inc., New York, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Swartwout Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Strainers, Foot Valve

Clow, James B., & Sons, Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Mark, Clayton, & Co., Chicago, Ill.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

Strainers, Gasoline

Blackmer Pump Co., Grand Rapids, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Buffalo Meter Co., Buffalo, N. Y.
Davis Regulator Co., Chicago, Ill.
Davison Combustion Co., Pittsburgh, Pa.
Fisher Governor Co., The, Marshalltown, Iowa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Lunkenheimer Co., The, Cincinnati, Ohio.
Michigan Wire Cloth Co., Detroit, Mich.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Newark Wire Cloth Co., Newark, N. J.
Sarco Co., Inc., New York, N. Y.
Self Cleaning Strainer Co., Chicago, Ill.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

Strainers, Hose

American Injector Co., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Mark, Clayton, & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rumsey Pump Corp., Seneca Falls, N. Y.
Self Cleaning Strainer Co., Chicago, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Watson & McDaniel Co., Philadelphia, Pa.

Strainers, Oil

Blackmer Pump Co., Grand Rapids, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Buffalo Meter Co., Buffalo, N. Y.
Cambridge Wire Cloth Co., Cambridge, Md.
Davis Regulator Co., Chicago, Ill.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hauck Manufacturing Co., Brooklyn, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Leiman Bros., Inc., Newark, N. J.
Leslie Co., Lyndhurst, N. J.
Michigan Wire Cloth Co., Detroit, Mich.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
New York Brass Foundry Co., New York.
Newark Wire Cloth Co., Newark, N. J.
Nugent, Wm. W., & Co., Chicago, Ill.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

Strainers, Pipe, for Steam, Air, Oil and Water

American Injector Co., Detroit, Mich.
Blackmer Pump Co., Grand Rapids, Mich.
Davis Regulator Co., Chicago, Ill.
Economy Pumping Machinery Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Haydenville Co., The, Haydenville, Mass.
Kaye & MacDonald, Inc., West Orange, N. J.
Mason Regulator Co., Boston, Mass.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Sarco Co., Inc., New York, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Starline, Inc., Harvard, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products Inc., Westfield, Mass.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

Strainers and Traps, Sediment

American Injector Co., Detroit, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Meter Co., Buffalo, N. Y.
Davis Regulator Co., Chicago, Ill.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Kaye & MacDonald, Inc., West Orange, N. J.
Kupferle, John C., Foundry Co., St. Louis.
Murray, J. D., Mfg. Co., Wausau, Wis.
Nugent, Wm. W., & Co., Chicago, Ill.
Prier Brass Mfg. Co., Kansas City, Mo.
Self Cleaning Strainer Co., Chicago, Ill.
Swartwout Co., The, Cleveland, Ohio.
Swett, A. L., Iron Works, Medina, N. Y.
Toledo Pressed Steel Co., The, Toledo, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

Strainers, Steam Pump

Davis Regulator Co., Chicago, Ill.
Foster Engineering Co., Newark, N. J.
Milwaukee Valve Co., Milwaukee, Wis.
Sarco Co., Inc., New York, N. Y.
Self Cleaning Strainer Co., Chicago, Ill.
Watson & McDaniel Co., Philadelphia, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Strainers, Steam Trap

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Grinnell Co., Inc., Providence, R. I.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Kaye & MacDonald, Inc., West Orange, N. J.
Kieley & Mueller, Inc., New York, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Sarco Co., Inc., New York, N. Y.
Self Cleaning Strainer Co., Chicago, Ill.
Swartwout Co., The, Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Strainers, Valve

Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Kieley & Mueller, Inc., New York, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

Strainers, Water

American Injector Co., Detroit, Mich.
Buffalo Meter Co., Buffalo, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Haydenville Co., The, Haydenville, Mass.
Hersey Manufacturing Co., Boston, Mass.
Imperial Brass Mfg. Co., Chicago, Ill.
Kaye & MacDonald, Inc., West Orange, N. J.
Kieley & Mueller, Inc., New York, N. Y.
Leslie Co., Lyndhurst, N. J.
Mark, Clayton, & Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Michigan Wire Cloth Co., Detroit, Mich.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sarco Co., Inc., New York, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Williams, D. T., Valve Co., The, Cincinnati.
Worthington Pump and Machinery Corp., Harrison, N. J.
Wright-Austin Co., Detroit, Mich.

Strand, Wire, Galvanized

American Steel & Wire Co., Chicago, Ill.
Pacific Wire Rope Co., Los Angeles, Cal.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Upson-Walton Co., The, Cleveland, Ohio.

Strapping, Box

Acme Steel Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stanley Works, The, New Britain, Conn.

Strapping, Loom

Alexander, E. P., & Son, Inc., Clifton Heights, Pa.
Baltimore Belting Co., Baltimore, Md.
Brown, D. P., & Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Gates Rubber Co., The, Denver, Colo.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
McLeod Leather & Belting Co., Greensboro, N. C.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Schieren, Chas. A., Co., New York, N. Y.

Straps, Leather and Rawhide

Alexander, E. P., & Son, Inc., Clifton Heights, Pa.
Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
California Tanning Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Economy Manufacturing Co., Philadelphia.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Ireson, Charles L., Co., Philadelphia, Pa.
Himmelein & Bailey, Inc., Camden, N. J.
Jacobs, E. H., Danielson, Conn.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.

Straps—Lug, Check and Shuttle

Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Field, R. B., & Co., Worcester, Mass.
Gates Rubber Co., The, Denver, Colo.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
McLeod Leather & Belting Co., Greensboro, N. C.
Mechanical Rubber Co., The, Passaic, N. J.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.

Straps, Pipe

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Chicago Expansion Bolt Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Fee & Mason Mfg. Co., Inc., New York.
Grabler Mfg. Co., Cleveland, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Walworth Co., New York, N. Y.

Stretchers, Pulley Lagging

Himmelein & Bailey, Inc., Camden, N. J.

Leather Straps
and
Textile Leathers
of all descriptions

General Utility Straps, Automobile Straps, Safety Straps, Skate Backs and Straps, etc., Textile Mill Strapping, including Check, Lug, Flat and Round Harness, Loop Straps and Bumpers, Pickers, Miscellaneous Specialties.

Whenever you have a strapping problem, we will welcome the opportunity to give you the benefit of our experience.

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42 FERRY ST., NEW YORK

Stretchers, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Stretchers, Wire, Lineman's

Crescent Tool Co., Jamestown, N. Y.
Ideal Commutator Dresser Co., Sycamore, Ill.

Strippers, Wire, Lineman's

Crescent Tool Co., Jamestown, N. Y.
Starline, Inc., Harvard, Ill.

Stud Setters

(See "Setters, Stud")

Studs, Belt

Greene, Tweed & Co., New York, N. Y.
Manufacturers' Belt Hook Co., Chicago, Ill.

Studs, Brass

Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Harper, H. M., Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
United Screw & Bolt Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Studs, Iron and Steel, for Various Purposes

Acme Machine Products Co., Muncie, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Ferry Cap & Set Screw Co., Cleveland, O.
Filer & Stowell Co., The, Milwaukee, Wis.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Acme Co., The, Cleveland, Ohio.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

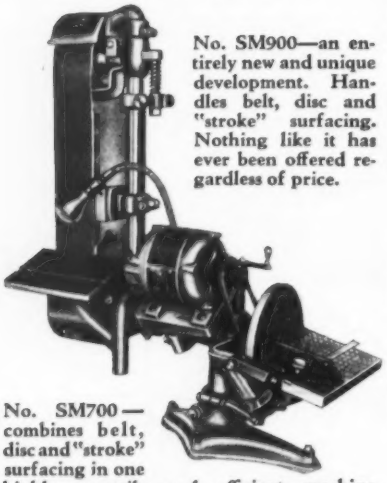
Supplies

(See Specific Items)

UMI

WALKER-TURNER

SURFACERS



No. SM900—an entirely new and unique development. Handles belt, disc and "stroke" surfacing. Nothing like it has ever been offered regardless of price.

No. SM700—combines belt, disc and "stroke" surfacing in one highly versatile and efficient machine. Rugged enough for continuous operation. Sells on sight.

See these tools in the new 1937 Walker-Turner Catalog.

WALKER-TURNER CO., INC.
Plainfield, N. J.

Engineered **POWER TOOLS**

Supports, Pipe

(See "Brackets and Supports, Pipe")

Surfacers

Dallett Co., The, Philadelphia, Pa.
Foster-Johnson Reamer Co., Elkhart, Ind.
Oliver Machinery Co., Grand Rapids, Mich.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.

Swages, Blacksmiths'

Dallett Co., The, Philadelphia, Pa.
Heller Brothers Co., Newark, N. J.
Noyes, B. B., Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Swages, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Shortridge, E. G., & Co., Kokomo, Ind.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., and Son, Chicago, Ill.

Swaging Machines

(See "Machines, Swaging")

Switches, Monorail

American MonoRail Co., Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Harrington Co., The, Philadelphia, Pa.
Maris Brothers, Inc., Philadelphia, Pa.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Switches, Railroad Track

Bethlehem Steel Co., Bethlehem, Pa.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.

Swivels, Chain

American Chain Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Upson-Walton Co., The, Cleveland, Ohio.

Syphons, Acid

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Pyrene Manufacturing Co., Newark, N. J.
Safety Equipment Service Co., Cleveland.
Schutte & Koerting Co., Philadelphia, Pa.

Syphons, Pressure Gauge

Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.

Syphons, Steam Jet

Hennebohle, Frank, Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Starline, Inc., Harvard, Ill.
Tranter Mfg. Co., Pittsburgh, Pa.
Watson & McDaniel Co., Philadelphia, Pa.

Systems, Track, Overhead

(See "Trolleys, Tracks and Tramways, Overhead")

Systems, Water Supply

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Fitz Water Wheel Co., Hanover, Pa.
Ft. Wayne Engineering Mfg. Co., Ft. Wayne, Ind.
Goulds Pumps, Inc., Seneca Falls, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
McWane Cast Iron Pipe Co., Birmingham, Ala.
Myers, F. E., & Bro. Co., The, Ashland, O.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Red Cross Mfg. Co., Bluffton, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Corp., Seneca Falls, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Tables, Brazing

Turner Brass Works, The, Sycamore, Ill.
Weldit Acetylene Co., Detroit, Mich.

Tables, Saw

Barnes, W. F. & John, Co., Rockford, Ill.
Boice-Crane Co., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia, Pa.
Construction Machinery Co., Waterloo, Iowa. (Portable, for contractors)
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Mountville Mfg. Co., Mountville, Pa.
Nelson Bros. Co., Saginaw, Mich.
Oliver Machinery Co., Grand Rapids, Mich.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Tables, Steel

Angle Steel Stool Co., Plainwell, Mich.
Beckley Perforating Co., Garwood, N. J.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Littleford Bros., Cincinnati, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
West Bend Equipment Corp., West Bend, Wis.

Tables, Welding

General Electric Co., Schenectady, N. Y.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Weldit Acetylene Co., Detroit, Mich.
West Bend Equipment Corp., West Bend, Wis.

Tables, Work, Factory

Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
West Bend Equipment Corp., West Bend, Wis.

Tachometers

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Corbin Screw Corp., The, New Britain, Conn.
Foxboro Co., The, Foxboro, Mass.
Stewart-Warner Corp., Alemite Division, Chicago, Ill.
Veeder-Root, Inc., Hartford, Conn.

Tacks—Brass, Copper and Steel

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Hillwood Mfg. Co., The, Cleveland, Ohio.
Markwell Mfg. Co., Inc., New York, N. Y.
Tower Mfg. Co., Madison, Ind. (Steel only)

Tags, Bin

Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.

Take-Ups, Conveyor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Shafer Bearing Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Tampers

Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland, Ohio (Back fill, pneumatic)
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Littleford Bros., Cincinnati, Ohio.
Syntron Co., Pittsburgh, Pa. (Electric tie)
Worthington Pump and Machinery Corp., Harrison, N. J.

Tanks, Fire Bucket

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Rochester Can Co., Rochester, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.

Tanks, Gasoline

Bethlehem Steel Co., Bethlehem, Pa.
Bowser, S. F., Co., Fort Wayne, Ind.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Farquhar, A. B., Co., Ltd., York, Pa.
Ingalls Iron Works Co., The, Birmingham, Ala.
Keystone Boiler & Foundry Co., Landisville, Pa.
Littleford Bros., Cincinnati, Ohio.
Mars Co., The, Aurora, Ill.
Morrison Bros., Dubuque, Iowa.
Novelty Steam Boiler Works Co., The, Baltimore, Md.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Tanks and Cabinets, Oil

Bowser, S. F., Co., Fort Wayne, Ind.
Burt Manufacturing Co., The, Akron, Ohio.
Chapin, R. E., Mfg. Works, Batavia, N. Y.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Littleford Bros., Cincinnati, Ohio.
Miller Machine Works, Springs, Pa.
Nugent, Wm. W., & Co., Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Tanks, Paint Spray

Binks Manufacturing Co., Chicago, Ill.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Gast Mfg. Co., The, Bridgman, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Novelty Steam Boiler Works Co., The, Baltimore, Md.
Paasche Airbrush Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simplex Spray Equipment Co., Chicago, Ill.

Tanks, Rubber Lined

Blaw-Knox Co., Pittsburgh, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Ingalls Iron Works Co., The, Birmingham, Ala.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.

Tanks, Sand Blast

(See "Sand Blast Machines and Equipment")

Tanks, Storage

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bastian-Morley Co., La Porte, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Bowser, S. F., & Co., Fort Wayne, Ind.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Creamer Glass Works, Millville, N. J.
Ingalls Iron Works Co., The, Birmingham, Ala.
Keystone Boiler & Foundry Co., Landisville, Pa.
Littleford Bros., Cincinnati, Ohio.
Mars Co., The, Aurora, Ill.
Miller Machine Works, Springs, Pa.
Morrison Bros., Dubuque, Iowa.
Novelty Steam Boiler Works Co., The, Baltimore, Md.
Nugent, Wm. W., & Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Tap and Drill or Reamer Combined

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.

Tape and Wicking, Asbestos

Carey, Philip, Co., The, Lockland, Ohio.
Chesterton, A. W., Co., Boston, Mass.
Darcold Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Southern Friction Materials Co., Charlotte, N. C.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Manufacturing & Gasket Co., Chicago, Ill.

Tape, Insulating or Friction

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Carey, Philip, Co., The, Lockland, Ohio. (Asbestos)
Dunton, M. W., Co., The, Providence, R. I.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., The, Palmyra, N. Y.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Johns-Manville, New York, N. Y.
Mechanical Rubber Co., The, Passaic, N. J.
Minnesota Mining & Mfg. Co., St. Paul (insulating only)
New York Belting & Packing Co., Passaic, N. J.
Ruberoid Co., The, New York, N. Y.
Southern Friction Materials Co., Charlotte, N. C.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Tape-Rules

Lufkin Rule Co., The, Saginaw, Mich.

Tapes—Masking, for Automobile Refinishing

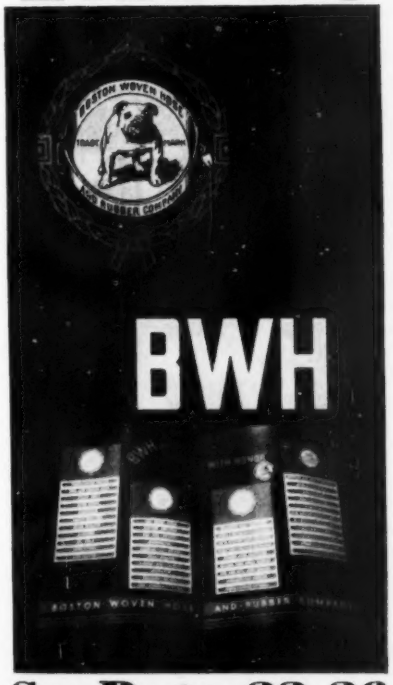
Minnesota Mining & Mfg. Co., St. Paul, Minn.

Tapes, Measuring

Dietzgen, Eugene, Co., Chicago, Ill.
Keuffel & Esser Co., Hoboken, N. J.
Lufkin Rule Co., The, Saginaw, Mich.

(Continued on page 312)

TAPES



See Pages 33-36

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Most Satisfactory to use Easiest to Sell

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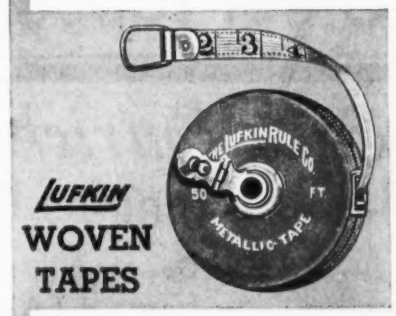
Most complete assortment of all patterns.



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Manufacturers of Hacksaws Unexcelled
Steel Tapes—Standard for Accuracy

ATHOL, MASS., U. S. A.

Starrett Steel Tapes

Tapes, Measuring

(Continued from page 311)

Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Tappers, Electric

Black & Decker Mfg. Co., Towson, Md.
Chicago Pneumatic Tool Co., New York.
Ettco Tool Co., Brooklyn, N. Y.
Independent Pneumatic Tool Co., Chicago.
Louisville Electric Manufacturing Co., Louisville, Ky.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Procunier Safety Chuck Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., Towson, Md.

Tappers, Nut

Alvord-Polk Tool Co., Millersburg, Pa.
Barnes Drill Co., Rockford, Ill.
Chicago Pneumatic Tool Co., New York.

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GILDERSLEEVE, CONN.

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Chicago Tool & Engineering Co., Chicago.
Delta Mfg. Co., Milwaukee, Wis.
Ettco Tool Co., Brooklyn, N. Y.
Independent Pneumatic Tool Co., Chicago.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Milwaukee Electric Tool Corp., Milwaukee.
Procunier Safety Chuck Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

Tapping Machines

(See "Machines, Tapping")

Taps—Bit Brace, Blacksmiths', Boiler, Machine Screw, Machine Nut, Machinists' Hand, Patch Bolt, Pulley, Staybolt, Tapper, Etc.

Alvord-Polk Tool Co., Millersburg, Pa.
American Screw Co., Providence, R. I. (Machine screw)
Armstrong Manufacturing Co., Bridgeport, Conn.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap and Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Champion Blower & Forge Co., Lancaster, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.

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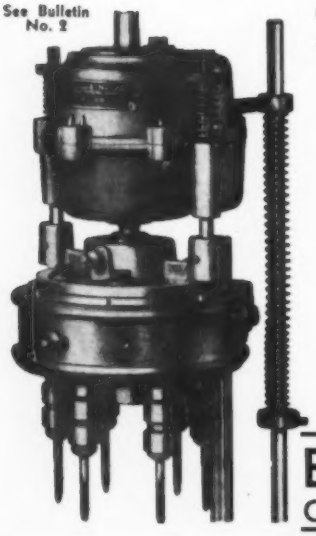
A successful machine for fast, accurate tapping. It's only a matter of time before it replaces existing methods. It is about twice as fast as ordinary drill press tapping and yet simplification enables us to offer this machine at an average price of $200. Capacity up to 5/16" in soft metal—1/4" in thin steel.

See Bulletin No. 2



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Universally recognized as the standard friction-driven tapping attachment. Backed by 20 years' experience. Incorporates every feature for fast, trouble-free machine tapping. Ball bearings, helical gears insure highest possible speeds. 7 sizes—from No. 2 to 1 inch Taps.

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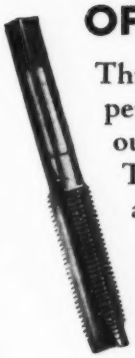

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Threading tools of DEPENDABLE performance for which there is an outstanding customer preference. This consumer preference has built and continues to build profitable and repeat business for distributors handling the WINTER BROTHERS line. Why not write for full particulars?

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Threadwell Tap & Die Co., Greenfield, Mass.
Whitman and Barnes, Inc., Detroit, Mich.
Winter Brothers Co., Wrentham, Mass.

Taps, Collapsible

Geometric Tool Co., The, New Haven, Conn.
National Acme Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.

Taps, Expanding

Card, S. W., Mfg. Co., Division of Union Twist Drill, Mansfield, Mass.
Pratt & Whitney Co., Hartford, Conn.

Taps, Hob

Alvord-Polk Tool Co., Millersburg, Pa.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., The, Cleveland, Ohio.

Taps, Mud Plug or Washout

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Wrentham, Mass.

Taps, Pipe

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Crane Co., Chicago, Ill.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Walworth Co., New York, N. Y.
Whitman and Barnes, Inc., Detroit, Mich.
Winter Brothers Co., Wrentham, Mass.

Taps, Serial

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.

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Besly, Charles H., & Co., Chicago, Ill.
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Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Stove Bolt

Alvord-Polk Tool Co., Millersburg, Pa.
American Screw Co., Providence, R. I.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Whitman and Barnes, Inc., Detroit, Mich.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Taper

Alvord-Polk Tool Co., Millersburg, Pa.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mark, Clayton & Co., Chicago, Ill.
National Acme Co., Cleveland, Ohio.

UMI

Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Tapper

Alvord-Polk Tool Co., Millersburg, Pa.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Whitman and Barnes, Inc., Detroit, Mich.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Thread, Brass Tubing

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bay State Tap & Die Co., Mansfield, Mass.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Tarpaulins

Atlantic Manufacturing Co., Wilmington, Del.
Hettrick Mfg. Co., Toledo, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Ohio Buff & Mfg Co., The, Cincinnati, O.
Upson-Walton Co., Inc., The, Cleveland, O.

Tees, Branch

Acheson Manufacturing Co., Rankin, Pa.
American Cast Iron Pipe Co., Birmingham, Ala.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Grinnell Co., Inc, Providence, R. I.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., North Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Tees, Brass

Acheson Manufacturing Co., Rankin, Pa.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Atlas Brass Foundry, Los Angeles, Calif.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Nugent, Wm. W., & Co., Chicago, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Tees, Cast Iron

American Cast Iron Pipe Co., Birmingham, Ala.
American Radiator Co., New York, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Tees, Eccentric

American Cast Iron Pipe Co., Birmingham, Ala.
Crane Co., Chicago, Ill.
Grinnell Co, Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kuhns Bros. Co., Dayton, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Walworth Co., New York, N. Y.

Tees, Ferrosteel

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Grinnell Co., Inc., Providence, R. I.
Moak Machine & Tool Co., Port Huron, Mich.
Walworth Co., New York, N. Y.

Tees, Hydraulic

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., & Co., Philadelphia, Pa.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y.
Pittsburgh Valve & Fittings Co., Pittsburgh, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Tees, Malleable Iron

Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Tees, Steel

Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Crane Co., Chicago, Ill.
Inland Steel Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Tees, Suction

Walworth Co, New York, N. Y.

Tees, Union

Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore Md. (Bronze)
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Teeth, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Sampson Tool Co., Inc., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.

Tenders, Tool and Machine

All Steel Welded Truck Corp., Rockford, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.

Tents, Canvas

Hettrick Mfg. Co., Toledo, Ohio.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.

Testers, or Test Pumps, Gauge

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Boekel, Wm., & Co., Philadelphia, Pa.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Perkes, Charles, Co., Philadelphia, Pa.
Syracuse Steam Generator, Inc., Syracuse.

Testers, Screw Thread Gauge

Lufkin Rule Co., The, Saginaw, Mich.

Testers, Water Meter

Mueller Co., Decatur, Ill.

Thawers, Pipe, Steam

Bernz, Otto, Co., Inc., Rochester, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Unique Manufacturing Co., Inc., Chicago.

Thawing Machines and Steamers, Pipe

(See "Machines and Steamers, Thawing, Pipe")

Thermometers, Dial

H-B Instrument Co., Inc., Philadelphia, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill.
Pyrometer Instrument Co., The, New York, N. Y.
Sarco Co., Inc., New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Co., New York, N. Y.

Thermometers, Hot Water

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Foxboro Co., The, Foxboro, Mass.
H-B Instrument Co., Inc., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Palmer Co., The, Cincinnati (St. Bernard), Ohio.
Philadelphia Thermometer Co., Philadelphia, Pa.
Powers Regulator Co., The, Chicago, Ill.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Co., New York, N. Y.

Thermometers, Indicating

Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Foxboro Co., The, Foxboro, Mass.
H-B Instrument Co., Inc., Philadelphia, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Palmer Co., The, Cincinnati (St. Bernard), Ohio.

Philadelphia Thermometer Co., Philadelphia, Pa.
Powers Regulator Co., The, Chicago, Ill.
Pyrometer Instrument Co., The, New York, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Thermometers, Recording

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Dietzgen, Eugene, Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
H-B Instrument Co., Inc., Philadelphia, Pa.
Leeds & Northrup Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Pyrometer Instrument Co., The, New York, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Thermostats

Barber-Colman Co., Rockford, Ill
Bastian-Morley Co., La Porte, Ind.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
General Electric Co., Schenectady, N. Y.
H-B Instrument Co., Inc., Philadelphia, Pa.
Klipfel Manufacturing Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Metal Saw and Machine Co., Springfield, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
National Dry Kiln Co., The, Indianapolis, Ind. (Dry kiln)
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Trent, Harold E., Co., Philadelphia, Pa.
Vulcan Electric Co., Lynn, Mass.

Thieves, Water

Economy Manufacturing Co., Philadelphia.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Thimbles, Pipe

Grabler Mfg. Co., Cleveland, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Swett, A. L., Iron Works, Medina, N. Y.

Thimbles, Rope

American Steel & Wire Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Newhall Chain Forge & Iron Co., New York.
Roebling's, John A., Sons Co., Trenton, N. J.
U. S. Expansion Bolt Co., New York, N. Y.
Upson-Walton Co., The, Cleveland, Ohio.
Western Block Co., Lockport, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.

Thimbles, Wall

Columbian Iron Works, Chattanooga, Tenn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Thread Button Set (For Marking Blind Holes)

National Machine Tool Co., Racine, Wis.

Thread Rolling Machines

(See "Machines, Thread Rolling")

Threaders, Bolt and Cap Screw

(See "Machines, Threading, Bolt and Cap Screw," and "Stocks and Dies, Bolt")

Threaders, Nipple, Ceiling

Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Greenfield Tap & Die Corp., Greenfield, Mass.

Threaders, Pipe

(See "Machines, Cutting and Threading, Pipe," "Stocks, Die," "Stocks and Dies," and "Dies, Pipe Threading")

Threading Machines

(See "Machines, Threading," and "Machines, Cutting and Threading")

Tiering Machines

(See "Elevators, Pilers or Stackers, Portable")

Tighteners, Belt

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Chicago Pulley & Shafting Co., Chicago.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farquahar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Schieren, Chas. A., Co., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Tile—Galvanized, Zinc and Copper

Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.

Tiling, Rubber Floor

Buffalo Weaving & Belting Co., Buffalo, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

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American Pulley Co., The, Philadelphia.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Safety Equipment Service Co., The, Cleveland, Ohio.
Schwenk Safety Device Corp., New York.

Tips, Cutting and Welding

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.

Toggles

Carroll Chain Co., The, Columbus, Ohio.
Chicago Expansion Bolt Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Star Expansion Bolt Co., New York, N. Y.

Tongs, Blacksmiths'

Dallett Co., The, Philadelphia, Pa.
Heller Brothers Co., Newark, N. J.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tongs, Bolt

Heller Bros. Co., Newark, N. J.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tongs, Chain, Pipe

(See "Wrenches, Pipe, Chain")

Tongs, Clinch

Heller Brothers Co., Newark, N. J.

Tongs, Clinker

Columbian Iron Works, Chattanooga.
Leetonia Tool Co., The, Leetonia, Ohio.

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Hammel, Riglander & Co., Inc., Importers, New York, N. Y.

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Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Crane Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Heller Brothers Co., Newark, N. J.
National Transit Pump & Machine Co., Oil City, Pa.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Tongs, Rail and Tie

Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.

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Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tongs, Stone

Dallett Co., The, Philadelphia, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tool Boxes and Chests

(See "Boxes, Tool," and "Chests, Tool")

Tool Sets, Hollow Handle

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Millers Falls Co., Greenfield, Mass.
Sandvik Saw & Tool Corp., Minneapolis.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Anvil

Dallett Co., The, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville Ind.
Heller Bros. Co., Newark, N. J.
Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Balancing

Brown & Sharpe Mfg. Co., Providence, R. I.
Gisholt Machine Co., Madison, Wis.
Sundstrand Machine Tool Co., Rockford, Ill.

Tools, Beading

Leetonia Tool Co., The, Leetonia, Ohio.
Plomb Tool Co., Los Angeles, Calif.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Tool Division, Chicago.
Tallman Manufacturing Co., Shelbyville, Ill.

Tools, Belt Lacing

Alexander Brothers, Inc., Philadelphia, Pa.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit Belt Lacer Co., Detroit, Mich.
Graton & Knight Co., Worcester, Mass.
Greene, Tweed & Co., New York, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Manufacturers' Belt Hook Co., Chicago, Ill.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Safety Belt-Lacer Co., Toledo, Ohio.
Schieren, Chas. A., Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Tools, Belt Makers'

Baltimore Belting Co., Baltimore, Md.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Graton & Knight Co., Worcester, Mass.
Manufacturers' Belt Hook Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Tools, Blacksmiths'

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Electric Blower Co., Boston, Mass.
Gundlach, T. J., Machine Co., Belleville, Ill.
Heller Brothers Co., Newark, N. J.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Ingersoll-Rand Co., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Noyes, B. B., Co., Greenfield, Mass.
R. S. Products Corp., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Boilermakers'

Dudgeon, Richard, Inc., New York, N. Y.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Key Co., East St. Louis, Ill.
Lignum-Vitae Products Corp., Jersey City, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Tool Division, Chicago.
Stanley Rule & Level Plant, The, New Britain, Conn.
Whitney Metal Tool Co., Rockford, Ill.

Tools, Boring

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Delta Mfg. Co., Milwaukee, Wis.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Also tunneling tools)
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hannifin Mfg. Co., Chicago, Ill.
Ingersoll Milling Machine Co., Rockford, Ill.
Kelly Reamer Co., Cleveland, Ohio.
Lovejoy Tool Co., Inc., Springfield, Vt.
Madison Manufacturing Co., Muskegon, Mich.
Moak Machine & Tool Co., Port Huron, Mich.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Westcott Chuck Co., Oneida, N. Y.
Williams, J. H., & Co., New York, N. Y.

Tools—Boring, Facing and Turning Combined

Armstrong Bros. Tool Co., Chicago, Ill.
Gisholt Machine Co., Madison, Wis.
Hannifin Mfg. Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ingersoll Milling Machine Co., Rockford, Ill.
Kelly Reamer Co., Cleveland, Ohio.
Scully-Jones & Co., Tool Division, Chicago, Ill.

Tools, Brazing

Air Reduction Sales Co., New York, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia Pa.
Heller Brothers Co., Newark, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York, N. Y.
Smith Welding Equipment Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Torchweld Equipment Co., Chicago, Ill.
Turner Brass Works, The, Sycamore, Ill.
Weldit Acetylene Co., Detroit, Mich.

Tools—Bricklayers', Cement Workers' and Masons'

American Swiss File & Tool Co., Elizabeth, N. J.
Atlas-Ansonia Co., New Haven, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston Mass.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Floor scraper for cement workers)
Johnson, William, Inc., Newark, N. J.
Marshalltown Trowel Co., Marshalltown, Iowa.
Peerless Level & Tool Co., The, Sterling, Ill.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Calking

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Mueller Co., Decatur, Ill.
Plomb Tool Co., Los Angeles, Calif.
Ryerson, Joseph T., & Son, Inc., Chicago.
Star Bit & Tool Co., Rockford, Ill.
Van Dorn Electric Tool Co., The, Towson, Md.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tools, Carbide

Armstrong Bros. Tool Co., Chicago, Ill.
Carboloy Co., Inc., Detroit, Mich.
Ludlum Steel Co., Watervliet, N. Y.

Tools, Carpenters'

Atkins, E. C., and Co., Indianapolis, Ind.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Grobet File Corp. of America, New York.
Heller Brothers Co., Newark, N. J.
Lignum-Vitae Products Corp., Jersey City, N. J.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Peerless Level & Tool Co., The, Sterling, Ill.
Sandvik Saw & Tool Corp., Minneapolis.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Starrett, L. S., Co., The, Athol, Mass.
Tuck Mfg. Co., Brockton, Mass.
Wappat, Inc., Pittsburgh, Pa.
Williams, J. H., & Co., New York, N. Y.

Tools, Chain

Williams, J. H., & Co., New York, N. Y.

Tools, Combination

Atkins, E. C., and Co., Indianapolis, Ind.
Blackhawk Mfg. Co., Milwaukee, Wis.
Gairing Tool Co., Detroit, Mich.
Heller Brothers Co., Newark, N. J.
Scully-Jones & Co., Chicago, Ill.

Tools, Coopers'

Brown & Sharpe Mfg. Co., Providence, R. I.
Drew, C., & Co., Kingston, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Cutting-Off

(See "Holders, Tool, for Lathes, Planers, Shapers and Boring Machines")

Tools, Diamond Pointed

Commercial Diamond Co., Detroit, Mich.
Crucible Steel Co. of America, New York, N. Y.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Karelsen, E., Inc., New York, N. Y.
Kelly Reamer Co., Cleveland, Ohio.
Leetonia Tool Co., The, Leetonia, Ohio.
Plomb Tool Co., Los Angeles, Calif.

Tools, Dowel

Delta Mfg. Co., Milwaukee, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.

Tools, Draughtsmen's

Brown & Sharpe Mfg. Co., Providence, R. I.
Dietzgen, Eugene, Co., Chicago, Ill.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Starrett, L. S., Co., The, Athol, Mass.

Tools, Drilling, Well

(See "Machines and Tools Drilling, Well")

Tools, Electric

(See Specific Items)

Tools, Electricians'

Armstrong Manufacturing Co., Bridgeport, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Compton, W. H., Shear Co., The, Newark, N. Y. (Shears and scissors)
Crescent Tool Co., Jamestown, N. Y.
Drew, C., & Co., Kingston, Mass.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hinsdale Manufacturing Co., Chicago, Ill.
Ideal Commutator Dresser Co., Sycamore, Ill.
Klein, M., & Sons, Chicago, Ill.
North Bros. Mfg. Co., Philadelphia, Pa.
Schollhorn, Wm., Co, The, New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass. (Socket wrench set)

Tools, Fence

American Steel & Wire Co., Chicago, Ill.
Crescent Tool Co., Jamestown, N. Y.
Enderes, Son & Co., Inc., Guttenberg, Iowa.

Tools, Fine, Machinists'

Armstrong Bros. Tool Co., Chicago, Ill.
Atlas Press Co., Kalamazoo, Mich.
Billings & Spencer Co., The, Hartford, Conn.
Brown, R. H., & Co., New Haven, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.

(Continued on page 318)

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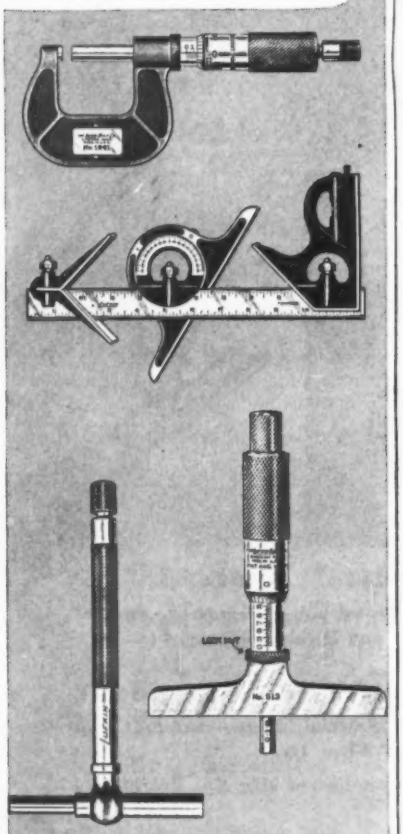

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(Continued from page 317)

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Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Tools, Firing

Columbian Iron Works, Chattanooga, Tenn.
Leetonia Tool Co., The, Leetonia, Ohio.
Vulcan Tool Mfg. Co., Quincy Mass.

Tools, Flaring, Copper Tube

Farnan Brass Works Co., The, Cleveland, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Tools, Grooving, Pipe

Beaver Pipe Tools, Inc., Warren, Ohio.
Gairing Tool Co., Detroit, Mich.
National Machine Tool Co., Racine, Wis.
Strickler, W. W., & Brothers, Columbus, O.

Tools, Hydraulic

Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.

Tools, Ice

Leach Co., Oshkosh, Wis.

Tools, Key Seating

Baker Brothers, Inc., Toledo, Ohio.
Mitts and Merrill, Saginaw, Mich.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

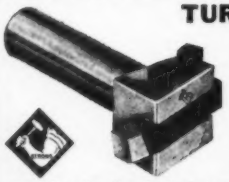
Tools, Knurling

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Burr, John T., & Son, Brooklyn, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Williams, J. H., & Co., New York, N. Y.

Tools, Lathe

Armstrong Bros. Tool Co., Chicago, Ill.
Atlas Press Co., Kalamazoo, Mich.
Boice-Crane Co., Toledo, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Gisholt Machine Co., Madison, Wis.
Latrobe Tool Co., Latrobe, Pa.
Lovejoy Tool Co., Inc., Springfield, Vt.
Marcy Tool Works, Inc., Putnam, Conn.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Chicago, Ill.
Scully-Jones & Co., Chicago, Ill.
Williams, J. H., & Co., New York, N. Y.

ARMSTRONG
TURRET LATHE and SCREW MACHINE TOOLS



The economies of the Armstrong System of Tool Holders (used in 96% of the tool rooms) have been extended to turret lathes and screw machines. With these new tools and a few standard shaped high speed steel bits one is tooled up to do many operations heretofore requiring costly special tools. Here is a new sales opportunity . . . a saving of steel and tool investment, time, and "All Forging, 70% Grinding and 90% High Speed Steel."

Write for Catalog B-35

ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
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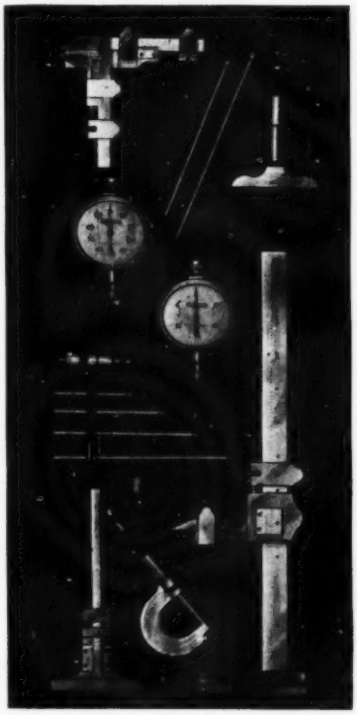

Be sure you have copies of the new revised edition of Starrett Catalog No. 25 EG. It illustrates and describes more than 3,000 fine tools including many new and important additions to the Starrett line.

THE L. S. STARRETT CO.
World's Greatest Toolmakers
Manufacturers of Hacksaws Unexcelled
Steel Tapes—Standard for Accuracy
ATHOL, MASS., U. S. A.

Sell Starrett Tools

Tools, Linemen's

Bonney Forge & Tool Works, Allentown, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Crescent Tool Co., Jamestown, N. Y.
Forged Steel Products Co., Newport, Pa.
Klein, M., & Sons, Chicago, Ill.
Leach Co., Oshkosh, Wis.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York, N. Y.
Schollhorn, Wm., Co., New Haven, Conn.

Tools, Logging

American Logging Tool Co., Evart, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Leach Co., Oshkosh, Wis.

Tools, Machinists'

(See "Tools, Fine, Machinists'")

Tools, Milling Machine

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Tool & Engineering Co., Chicago.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hinsdale Manufacturing Co., Chicago, Ill.
Ingersoll Milling Machine Co., Rockford, Ill.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Williams, J. H., & Co., New York, N. Y.

Tools, Mining

Cleveland Rock Drill Co., The, Cleveland.
Crucible Steel Co. of America, New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Tools, Molders'

Moak Machine & Tool Co., Port Huron, Mich.

Tools, Non-Sparking

Ampco Metal, Inc., Milwaukee, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Oil Well

Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Crucible Steel Co. of America, New York, N. Y.
Hinsdale Manufacturing Co., Chicago, Ill.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.

Tools, Packing

Cleveland Rock Drill Co., The, Cleveland.
Greene, Tweed & Co., New York, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.

Tools, Paving

Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Drew, C., & Co., Kingston, Mass.
United Screw & Bolt Corp., Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tools, Planer

Armstrong Bros. Tool Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Marcy Tool Works, Inc., Putnam, Conn.
Moak Machine & Tool Co., Port Huron, Mich.
Ryerson, Joseph T., & Son, Inc., Chicago.
Williams, J. H., & Co., New York, N. Y.

Tools—Plumbers', Steam and Gas Fitters'

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Atlas-Ansonia Co., New Haven, Conn.
Beaver Pipe Tools, Inc., Warren Ohio.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Bonney Forge & Tool Works, Allentown, Pa.
Crane Co., Chicago, Ill.
Crescent Tool Co., Jamestown, N. Y.
Drew, C., & Co., Kingston, Mass.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Boring spades)
Heller Brothers Co., Newark, N. J.
Hollands Mfg. Co., Erie, Pa.
Johnson, William, Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Mueller Co., Decatur, Ill.
Plomb Tool Co., Los Angeles, Calif.
Rapid Spring Co., The, Pittsburgh, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Turner Brass Works, The, Sycamore, Ill.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Tools, Pneumatic

Buckeye Portable Tool Co., The, Dayton, Ohio.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Schramm, Inc., West Chester, Pa.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Simplex Spray Equipment Co., Chicago, Ill.
Star Bit & Tool Co., Rockford, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Tools, Railroad Track

Aldon Co., The, Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Pneumatic Tool Co., New York.
Hubbard & Co., Pittsburgh, Pa.
Independent Pneumatic Tool Co., Chicago.
Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.

Tools, Roofers'

Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Scratch bars or scraper)
Gundlach, T. J., Machine Co., Belleville, Ill. (Asphalt cutters)
Littleford Bros., Cincinnati, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.

Tools, Sash

Osborn Manufacturing Co., The, Cleveland.

Tools, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Foley Manufacturing Co., Minneapolis.
K-D Manufacturing Co., Lancaster, Pa.
Simonds Saw and Steel Co., Fitchburg, Mass.

Tools, Scaling

(See "Hammers, Pneumatic-Chipping, Scaling, Riveting and Calking")

Tools, Screw Cutting, Lathe

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Gairing Tool Co., Detroit, Mich.
National Acme Co., Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Williams, J. H., & Co., New York, N. Y.

Tools, Screw Machine

Armstrong Bros. Tool Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Scully-Jones & Co., Tool Division, Chicago, Ill.

Tools, Shaper

(See "Holders, Tool, for Lathes, Planers, Shapers and Boring Machines")

Tools, Sheet Metal Working

(See "Machines and Tools, Sheet Metal Working")

Tools, Slotter

Armstrong Bros. Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.

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— A complete line —
Drills Hoists
Grinders Wrenches
Riveters Tampers
Chippers Saws
Ingersoll-Rand
11 BROADWAY, NEW YORK CITY

Tools, Soldering

Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Hones, Charles A., Inc., Baldwin, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Turner Brass Works, The, Sycamore, Ill.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.

Tools, Soldering, Electric

Electric Soldering Iron Co., Inc., New York, N. Y.
Electric Torch Mfg. Co., Oakland, Calif.
General Electric Co., Schenectady, N. Y.
Ideal Commutator Dresser Co., Sycamore, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Electric Co., Lynn, Mass.

Tools, Stonecutters'

Dallett Co., The, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass. (Marble workers' tools)
Lignum-Vitae Products Corp., Jersey City, N. J.
Ruemelin Mfg. Co., Milwaukee, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.
Wappat, Inc., Pittsburgh, Pa.

Tools, Stud Setting

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Milwaukee Electric Tool Corp., Milwaukee.
Van Dorn Electric Tool Co., The, Towson, Md.

Tools, Threading

(See "Dies," "Plates, Screw," "Stocks, Die," "Stocks and Dies" and "Taps")

Tools, Tinners'

Barcalo Mfg. Co., Buffalo, N. Y.
Bartlett Mfg. Co., Detroit, Mich.
Crescent Tool Co., Jamestown, N. Y.
Lignum-Vitae Products Corp., Jersey City, N. J.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Ryerson, Joseph T., & Son, Inc., Chicago.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.

Tools, Truing, Grinding Wheel

Armstrong Bros. Tool Co., Chicago, Ill.
Ross Mfg. Co., The, Cleveland, Ohio.

Tools, Turret Head

(See "Holders, Tool, for Lathes, Planers, Shapers and Boring Machines")

Tools, Valve Reseating

(See "Reseating Tools, Valve and Bibb")

Tools, Wood Carving

Dallett Co., The, Philadelphia, Pa.
Grobet File Corp. of America, New York.
Gustafson & Scott Mfg. Co., Chicago, Ill.

UMI

Lignum-Vitae Products Corp., Jersey City, N. J.
Millers Falls Co., Greenfield, Mass.
Ruemelin Mfg. Co., Milwaukee, Wis.

Tools, Wood Turning

Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.

Torches, Blow

Aeroil Burner Co., Inc., West New York, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Clements Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago.
Eagle Manufacturing Co., Wellsburg, W. Va.
Hauck Manufacturing Co., Brooklyn, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Justrite Manufacturing Co., Chicago, Ill.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Milburn, Alexander, Co., The, Baltimore.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Sandvik Saw & Tool Corp., Minneapolis.
Schaefer & Beyer, Inc., Newark, N. J.
Skilsaw, Inc., Chicago, Ill. (Electric).
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Chicago, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Torches, Cutting and Welding

Aeroil Burner Co., Inc., West New York, N. J.
Air Reduction Sales Co., New York, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Electric Torch Mfg. Co., Emeryville, Cal.
Harris Calorific Co., The, Cleveland, Ohio.
Imperial Brass Manufacturing Co., Chicago.
K-G Welding & Cutting Co., Inc., New York.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.

No. 500A—1 Quart Gasoline

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The Tested Tools

Since 1876 BERNZ Torches and Firepots are standard equipment with mills, factories, railways, utilities and industrial concerns.

They are the heaviest in construction and are protected by patents, so that they can be depended on to perform perfectly under all extremes of weather, and withstand hard usage. No tool kit is complete unless it includes a BERNZ Torch and Firepot, which are made in many styles.

THE NO. 500A TORCH produces a long, hot flame and burns in any position. Equipped with self-cleaning needle, bakelite valve wheel, and "Neverleak" Pump. This torch is worth far more than the price at which it is sold. You will have satisfied customers when they buy the No. 500A.

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No. 52—1 Gallon Gasoline-Kerosene

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An important model in the C & L line is the 325 heavy-duty torch. This popular tool has gained wide popularity in the industrial distribution trade.

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DETROIT, MICH.
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Torchweld Equipment Co., Chicago, Ill.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Torches, Decarbonizing

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Harris Calorific Co., The, Cleveland, Ohio.
K-G Welding & Cutting Co., Inc., New York.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Pittsburgh Thermoline Co., Pittsburgh, Pa.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Torches—Engineers', Factory, Mine, Etc.

Anthes Force Oiler Co., Fort Madison, Iowa.
Clayton & Lambert Mfg. Co., Detroit.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eagle Manufacturing Co., Wellsburg, W. Va.
Gem Manufacturing Co., Pittsburgh, Pa.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Manufacturing Co., Oakmont, Pa.

Torches, Gas

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clements Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eisler Electric Corp., Newark, N. J.
Harris Calorific Co., The, Cleveland, Ohio.
Hones, Chas. A., Inc., Baldwin, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Pittsburgh Thermoline Co., Pittsburgh.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Red Devil Manufacturing Co., Palatine, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torit Manufacturing Co., St. Paul, Minn.
Weldit Acetylene Co., Detroit, Mich.

Torches, Gasoline

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Detroit Torch & Manufacturing Co., Detroit, Mich.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Everhot Mfg. Co., Maywood, Ill.
Hauck Manufacturing Co., Brooklyn, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.
Klein, M., & Son, Chicago, Ill.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Schaefer & Beyer, Inc., Newark, N. J.
Turner Brass Works, The, Sycamore, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Torches, Kerosene

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dietz, R. E., Co., New York, N. Y.
Gem Manufacturing Co., Pittsburgh, Pa.
Harris Calorific Co., The, Cleveland, Ohio.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Toledo Pressed Steel Co., The, Toledo, Ohio.
Torit Mfg. Company, St. Paul, Minnesota.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Torches, Road, Warning

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Consolidated Iron-Steel Mfg Co., Cleveland, Ohio.
Dietz, R. E., Co., New York, N. Y.
Embury Manufacturing Co., Warsaw, N. Y.
Toledo Pressed Steel Co., The, Toledo, O.
Unique Manufacturing Co., Inc., Chicago.
Walters Manufacturing Co., Oakmont, Pa.

Torches, Thawing and Heating

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Diamond Iron Works, Inc., Minneapolis.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Electric Torch Mfg. Co., Emeryville, Cal.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.
Klein, M., & Son, Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torit Mfg. Co., St. Paul, Minn.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.
Walters Manufacturing Co., Oakmont, Pa.
Weldit Acetylene Co., Detroit, Mich.

Torches, Truck

Embury Manufacturing Co., Warsaw, N. Y.
Toledo Pressed Steel Co., The, Toledo, O.
Wall, P., Mfg. Supply Co., Pittsburgh.

Torches, Welding and Cutting

(See "Torches, Cutting and Welding")

Tracks, Overhead

(See "Trolleys, Tracks and Tramways, Overhead")

Tractors, Factory

(See "Trucks and Tractors, Factory")

Trailers for Industrial Tractors

All Steel Welded Truck Corp., Rockford, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Car & Foundry Co., New York.
Crescent Truck Co., Lebanon, Pa.
Electric Wheel Co., Quincy, Ill.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Littleford Bros., Cincinnati, Ohio.

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No other torch offers the economical, sure-fire protection that is secured with the genuine Toledo Torch. Recent refinements in construction still further simplify handling.

Ten years of manufacture and service are built into Toledo Torches, making them the outstanding torch value today.

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Fully in keeping with the high standards always maintained by Toledo Torches is this more recent addition to the line,—a better kind of truck flare. Using the same dependable Economy Burner and packed in a heavy steel case, they more than meet all state and federal requirements.

These flares are available in sets of two or three. The case is attachable to the truck in any convenient place or position. The flares fit the case in any position and may be locked in place. A specially designed flag completes this compact and convenient unit.

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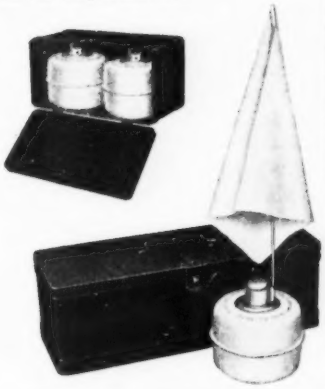
The Toledo Pressed Steel Co.

TOLEDO, OHIO



Moloch Foundry & Machine Co., Kaukauna, Wis.
Service Caster & Truck Co., The, Albion, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trammels

American MonoRail Co., Cleveland, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tramways, Overhead

(See "Trolleys, Tracks and Tramways, Overhead")

Transits, Builders'

Dietzgen, Eugene, Co., Chicago, Ill.
Gurley, W. & L. E., Troy, N. Y.
Keuffel & Esser Co., Hoboken, N. J.
Starrett, L. S., Co., The, Athol, Mass.

Transmissions, Right Angle

De Laval Steam Turbine Co., Trenton, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Driscoll Drive Corp., New York, N. Y.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Transmissions, Speed Reducing

(See "Reducers, Speed")

Transmissions, Variable Speed

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Brown, D. P., & Co., Philadelphia, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Driscoll Drive Corp., New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Lewellen Manufacturing Co., Columbus, Ind.
Link-Belt Co., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
Palmer-Bee Co., Detroit, Mich.
Reeves Pulley Co., Columbus, Ind.
Rockford Drilling Machine Division, Borg-Warner Corporation, Rockford, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Traps, Air

Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Grinnell Co., Inc., Providence, R. I.
Kaye & MacDonald, Inc., West Orange, N. J.
Kieley & Mueller, Inc., New York, N. Y.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Back Water

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.

Traps, Blast

Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Kaye & MacDonald, Inc., West Orange, N. J.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Sarco Co., Inc., New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Gasoline

Anderson, V. D., Co., The, Cleveland, O.
Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Grease

American Foundry & Mfg. Co., St. Louis.
Fee & Mason Mfg. Co., Inc., New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Milwaukee Steam Appliance Co., West Allis, Wis.
Murray, J. D., Mfg. Co., Wausau, Wis.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Oil

American Injector Co., Detroit, Mich.
Armstrong Machine Works, Three Rivers, Mich.
Efficiency Engineering Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Klipfel Manufacturing Co., Chicago, Ill.
Milwaukee Steam Appliance Co., West Allis, Wis.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

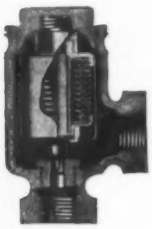
Traps, Pumping

Kieley & Mueller, Inc., New York, N. Y.
Strong, Carlisle & Hammond, Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.

UMI

SARCO STEAM TRAPS

Type No. 9—This is a thermostatic trap, suitable for individual trapping of all types of steam heated equipment. It is low in first cost, of small size and easy to install, going into the pipe like a fitting.



The No. 9 Trap is self-adjusting and works equally well on steady or fluctuating pressures. The discharge valve is operated by a helical bellows containing a volatile fluid. The moment live steam reaches the trap this fluid expands and closes the valve tightly. As condensate collects, the bellows contracts and opens the valve. Will not stick, freeze or air bind.

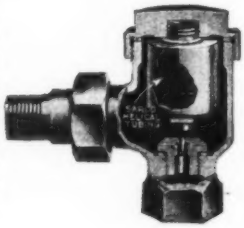
Type 9-1 for pressures 0 to 50 lb. Bronze valve head and seat.

Type 9-2 for pressures from 0 to 125 lb. Stainless steel valve head and seat.

Type 9-200 for pressures 0 to 200. Stainless steel valve head and seat.

Write for Catalog Z-48.

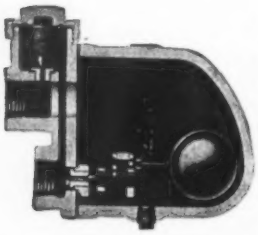
Type No. S-75 for Process Steam—Employs the same principle as the No. 9 Trap, but has union inlet connection and nickel-plated body. It has renewable stainless steel valve head and seat. Recommended for installations where process steam is used up to 100 lb. pressure. *Write for Catalog Z-46.*



Combination Float and Thermostatic Steam Trap FTH

For heavy service, where large quantities of very hot condensate form more rapidly than they can be handled by thermostatic means alone, such as large unit heaters, steam coils, hot water service tanks, etc., when using high pressure steam.

Body is cast iron, light enough to be supported directly on piping. A heavy seamless copper float opens the discharge valve through a simple toggle mechanism, as condensate accumulates in the trap. Valve head and renewable seat are stainless steel to withstand the scoring action of scale and sediment, and prevent wire drawing.



A thermostatic air vent is built right into the trap near the top. This consists of a small valve actuated by a helically coiled bellows, partly filled with a volatile liquid. The valve is held open as long as there is air in the trap, but closed tightly as soon as steam reaches it and causes the bellows to expand.

All working parts are attached to the cover so that they are easily inspected by removing the trap body without disturbing any piping connections. For pressures up to 200 lb. per sq. in. *Write for Catalog Z-38.*

SARCO CO., Inc.

183 Madison Ave. New York, N. Y.

Branches in Principal Cities

Sarco Canada Limited, Federal Bldg., Toronto, Ont., Canada

Traps, Radiator

American Radiator Co., New York, N. Y.
Armstrong Machine Works, Three Rivers, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Burrows, F. A., Mfg. Co., York, Pa.
D. G. C. Trap & Valve Co., Inc., New York.
Grinnell Co., Inc., Providence, R. I.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Holmberg Steam Trap Co., The, Lindsborg, Kans.
Kaye & MacDonald, Inc., West Orange, N. J.
Marsh, Jas. P., & Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
National Lead Co., New York, N. Y.
Sarco Co., Inc., New York, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Sediment

(See "Strainers and Traps, Sediment")

Traps, Steam

American Blower Corp., Detroit, Mich.
American Foundry & Mfg. Co., St. Louis.
Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, The, Three Rivers, Mich.
Automatic Primer Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Burrows, F. A., Mfg. Co., York, Pa.
Coe Manufacturing Co., The, Painesville, Ohio.
Crane Co., Chicago, Ill.
D. G. C. Trap & Valve Co., Inc., New York.
Davis Regulator Co., Chicago, Ill.
Efficiency Engineering Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Jenkins Bros., New York, N. Y.
Johns-Manville, New York.
Justus Steam Trap Co., Napanoch, N. Y.
Kaye & MacDonald, Inc., West Orange, N. J.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Lubron Co., The, Everett, Mass.
McAuley Automatic Trap Co., Pittsburgh.
Marsh, Jas. P., & Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Steam Appliance Co., West Allis, Wis.

(Continued on page 324)

One Address

is given editorially for Each Manufacturer Listed in the Directory Edition

This is the main or general sales office, or the one otherwise specified by the company

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YARWAY STEAM TRAP DATA

OPERATION

The Yarway Steam Trap operates on an entirely new principle. This trap does not depend upon the weight of condensate, the buoyancy of a float or the expansion of a bellows, but rather upon the characteristics of the flow of fluids of varying densities through two orifices in series, which cause variations of pressure in a control chamber located between the orifices, to open and close the valve.

Referring to the sectional view below, the first orifice is the annular space around the control disc L at top of valve F and the second orifice is the small hole through the top of the valve F. K is the control chamber.

Movement of valve F is governed by variations in pressure in control chamber K. Hot condensate causes higher pressure, closing the valve. Cooler condensate causes lower pressure, opening the valve.

As accumulation of cooler condensate is discharged, remaining condensate approaches steam temperature, flashing takes place, the flow is choked and pressure builds up in the control chamber K, closing the valve again.

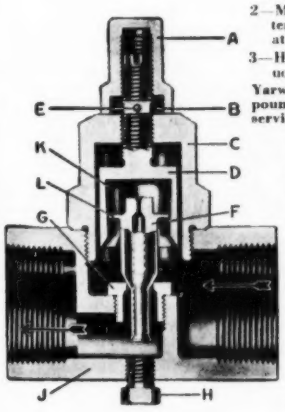
The characteristic discharge of Yarway traps varies with the condensate load as follows:

1—Small amount of condensate—Discharge is small and continuous through control orifice. Main valve does not lift.

2—Medium condensate load—Discharge is usually intermittent or pulsating, and the main valve opening and closing at short intervals, with light discharge between intervals.

3—Heavy condensate load—Discharge is heavy and continuous, with valve wide open.

Yarway traps are factory-set for all pressures from 0 to 400 pounds; hence they are ready for operation in all kinds of service without adjustment or interchange of internal parts.



CONSTRUCTION

The Yarway Steam Trap is unique in that there is only one moving part—the simple valve F illustrated. This trap is made of "bar-stock" throughout—no castings used in its construction. Body is cold rolled steel, valve and seat are of stainless steel, bonnet and cap of hex tobin bronze.

Years of service of thousands of Yarway traps in leading plants has proven these materials suitable for the service.

A—Cap Nut	E—Lock Pin	J—Body
B—Lock Nut	F—Valve	K—Control Chamber
C—Bonnet	G—Valve Seat	
D—Control Cylinder	H—Test Plug	L—Control Disc

INSTALLATION

A few typical Yarway trap connections are shown below, and the general ideas outlined can be applied to practically any kind of equipment requiring draining. The trap should be installed in a horizontal position with bonnet at top. Place where it will be easily accessible for inspection. Always locate trap as far away as possible from the point which is to be drained, and use bare pipe between drain point and trap.

It is well to locate valves so that trap can be cut off, if necessary, without interrupting other plant service. Bypasses are not necessary.

For best results, a large strainer having basket perforations not larger than 1/64" diameter, should always be used ahead of every Yarway Trap.

Before starting trap, blow piping out thoroughly. In case strainer is not used and some dirt is present in condensate, we recommend that no trap smaller than 1" size be used.

A 1/8" pipe plug is furnished on bottom of all traps. This connects with discharge chamber of trap. A 1/8" try cock or a nipple and valve can be screwed into this opening for use in checking the operation of trap when connected into a closed return system.

The discharge port in a Yarway trap is very short, so if discharging to atmosphere, run a length of pipe from discharge end so as to reduce noise and flash steam.

1. The Yarway steam trap will *not air bind.*
2. No priming is required with Yarway traps.
3. Yarway traps will not lose their prime by sudden pressure reduction.

CAPACITIES

Maximum continuous discharge of condensate in pounds per hours at 30° below steam temperature.

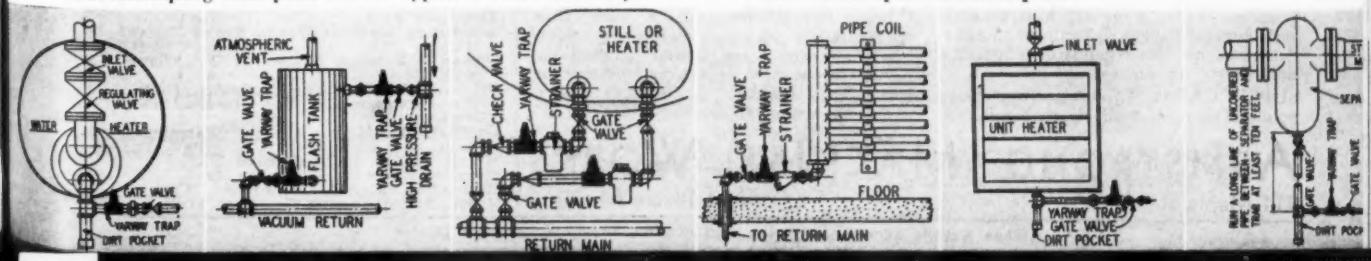
Pressure Pounds	1/2" No. 60	3/4" No. 61	1" No. 63	1 1/4" No. 64	1 1/2" No. 66	2" No. 67
10	475	825	1360	1910	2400	3425
20	650	1150	1725	2315	3050	4340
30	800	1375	1985	2650	3525	5050
40	900	1575	2220	2950	3950	5615
50	980	1725	2425	3200	4315	6100
60	1050	1850	2600	3425	4630	6525
70	1140	1975	2775	3660	4940	6930
80	1200	2080	2925	3875	5200	7260
90	1240	2175	3075	4075	5440	7600
100	1290	2260	3215	4280	5675	7875
125	1400	2460	3550	4760	6165	8530
150	1490	2640	3870	5175	6630	9075
200 to 400	1630	2900	4380	5960	7410	9950

Where greater capacity at low pressure is required, use two or more traps with check valve on discharge end of each trap. Where there are several places to be drained, each having small amount of condensation, and locations are close together, these points may be connected into one pipe line using one 1/2" trap, placing gate and check valve at each drain point. Yarway traps will operate against normal back pressure in return systems.

LIST PRICES, WEIGHTS AND DIMENSIONS

Size	Trap Complete	Body	Bonnet	VALVE ASSEMBLY (Control Cylinder with Lock Nut and Pin, Valve, Valve Seat)	Wt. Lbs.	Length Inches
1/2" No. 60	$15.00	$3.60	$3.20	$8.20	1 1/8	2 3/8
3/4" No. 61	22.00	4.80	4.40	12.80	1 3/4	2 3/4
1" No. 63	31.00	9.40	5.20	16.40	2 1/2	3 1/8
1 1/4" No. 64	48.00	19.60	7.00	21.40	3 7/8	3 3/4
1 1/2" No. 66	68.00	33.20	8.80	26.00	6	4 1/4
2" No. 67	90.00	45.00	12.40	32.60	8 1/2	4 3/4

NOTE—Bonnet price includes cap nut.



UMI

ARMSTRONG STEAM TRAPS

THE Armstrong line of steam traps is complete, with traps designed for every type of service, every capacity, and every pressure. Each trap embodies the genuine inverted bucket principle and is non-air-binding and self-scrubbing. The Armstrong trap has only two moving parts—the valve lever assembly and the inverted bucket. The seat and valve are special heat treated chrome steel and all other wearing parts are nickel chrome steel.

Trap mechanisms are carried in stock to resist such acids as sulphurous, nitric, and hydrogen sulphide, as well as common alkalis. Special materials can be used on order.

For extra fast removal of air the Armstrong "blast" trap is recommended having an air removal capacity of from 400 to 800 cu. ft. of free air per hour. The listings below permit ordering any general service traps your customers need.

For high pressure or high temperatures, for pulsating pressure or very large amounts of condensate, consult the nearest Armstrong representative, or send for The Armstrong Trap Book a 32 page steam trap manual.

SIZES, CAPACITIES AND LIST PRICES OF ARMSTRONG TRAPS

TRAP SIZE		No. 200	No. 201	No. 211	No. 212	No. 213	No. 214	No. 215	No. 216
Pipe Connections		½" †	½" ‡	½"	½"	½" or ¾"	1"	1" or 1¼"	1½" or 2"
List Price, Standard Trap, without Air Bypass		$7.00	$7.00	$9.25	$15.00	$20.75	$29.00	$38.00	$55.00
Telegraph Code, without Air Bypass		Acacia	Acanthus	Aspen	Birch	Walnut	Hemlock	Larch	Tamarack
List Price, with Air Bypass		$8.50	$8.50	$10.75	$17.00	$22.75	$31.50	$40.50	$60.00
Telegraph Code, with Air Bypass		Acacette	Acanette	Aspette	Birette	Walette	Hemlette	Larette	Tamrette
Height		4⅝"	5½"	6¼"	8"	10¼"	12½"	14"	16¼"
Diameter		4¼"	3¾"	4½"	5"	6⅛"	7½"	8½"	10⅝"
Weight		4 lbs.	4 lbs.	5½ lbs.	10½ lbs.	19 lbs.	32 lbs.	47 lbs.	76 lbs.
Maximum Pressure		125	125	200	200	250	250	250	250
Continuous discharge capacity in lbs. of water per hour at pressure indicated. For more complete information, see the Capacity Chart in the Armstrong Steam Trap Book. †For ¾" connections, order No. 202, Code, Quacia. ‡For ¾" connections, order No. 203, Code, Quanthus.	Lbs. Pressure 5	450	450	840	1560	3000	4600	7600	14,300
	10	560	560	1000	1900	3500	5600	9100	17,200
	15	640	640	1080	2060	3900	6300	10,000	19,000
	20	690	690	890	1800	3100	5900	8500	18,200
	25	460	460	940	1940	3390	6300	9200	20,000
	30	500	500	970	2050	3600	6600	9800	17,600
	40	550	550	780	1700	3450	5700	8400	20,000
	50	600	600	840	1840	3750	6200	8900	18,200
	60	635	635	900	1950	4050	6600	9300	19,600
	70	660	660	940	2030	3700	6100	9200	18,500
	80	690	690	800	1650	3920	6400	9700	19,800
	90	640	640	840	1750	3220	6100	10,100	18,000
	100	650	650	880	1840	3400	6300	10,400	18,500
	125	660	660	960	2040	3880	6700	10,900	20,400
	150	...	...	820	1530	3500	5900	9500	18,600
	200	...	...	900	1680	3200	5400	9500	17,400
	250	...	...	...	...	3500	5700	10,200	19,000

A TRAP FOR EVERY PURPOSE

STANDARD TRAPS—The majority of all trapping jobs can be handled with complete satisfaction by the seven standard size Armstrong Steam Traps ranging from the little No. 200 (or 201) up to the big No. 216. All of these traps are available with the exclusive automatic air by-pass for fast heating blast trap service.

HIGH PRESSURE — Standard Armstrong Forged Steel Traps are made in three sizes for pressures up to 1500 lbs. (Higher pressures built on order.) Each trap is tested at 3000 lbs. hydrostatic pressure. These traps are now available with integral flanges to conform to either American or Navy standards. Specification sheets on request.

SUPER CAPACITY—Armstrong Compound Traps are available to handle virtually unlimited volumes of condensate. Three standard sizes for low and medium pressures, and for high pressures. Larger sizes built on order.

PULSATING PRESSURES — Engine separators, etc., should be drained by traps, No. 223, 225, or 226, which feature the special separating chamber that protects trap valve mechanism from pulsations.

AIR TRAPS—Armstrong makes a complete line of traps for separating air, or other non-condensible gas, from water or other liquids. Removal of water from compressed air and deaerating closed water systems are typical applications. Ask for a copy of the new Armstrong Air Trap Bulletin. It describes numerous interesting applications.

ARMSTRONG MACHINE WORKS

811 Maple Street **Three Rivers, Michigan**

Traps, Steam

(Continued from page 322)

Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Powers Regulator Co., The Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Trerice, H. O., Co., Detroit, Mich.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Williams, D. T., Valve Co., Cincinnati.
Williams Gauge Co., The, N. S., Pittsburgh.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Traps, Steam, Expansion

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Kieley & Mueller, Inc., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Nason Manufacturing Co., New York, N. Y.
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Tagliabue Mfg. Co., Brooklyn, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.

Traps, Steam, Return

Bishop & Babcock Sales Co., Cleveland, O.
Crane Co., Chicago, Ill.
D. G. C. Trap & Valve Co., Inc., New York, N. Y.
Efficiency Engineering Co., Boston, Mass.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Kaye & MacDonald, Inc., West Orange, N. J.
Kieley & Mueller, Inc., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Sarco Co., Inc., New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Traps, Steam, Thermostatic

Bishop & Babcock Sales Co., Cleveland.
D. G. C. Trap & Valve Co., Inc., New York.
Grinnell Co., Inc., Providence, R. I.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.

Traps, Steam, Water Seal

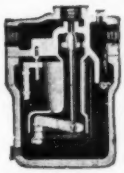
Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, Three Rivers, Mich.
D. G. C. Trap & Valve Co., Inc., New York.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Kaye & MacDonald, Inc., West Orange, N. J.
McAuley Automatic Trap Co., Pittsburgh.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Sarco Co., Inc., New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Traps, Vacuum

Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, Three Rivers, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Efficiency Engineering Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Marsh, Jas. P., & Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York.

Steam Traps

Experience has proven that there is no one type of trap suitable for all conditions. By manufacturing several types and patterns it is a simple matter to select a Wright-Austin trap of a type and size that is especially adapted to each particular requirement or service, resulting in the highest efficiency available.

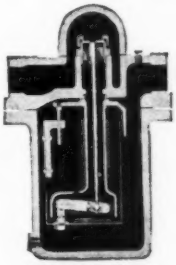


"Cub" Type
½" to 1"
0 to 250 lbs.

The "Airxpel," besides satisfying the requirements of those engineers who prefer a Vertical Bucket Type, is a highly efficient, accessible trap that embodies new and exclusive patented features. A "double duty" steam trap which automatically discharges both air and condensate.

It is made in three patterns.

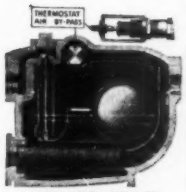
The small Baby and Cub sizes to serve Unit Heaters, Cookers, Chemical Processes, Laundry Equipment, etc.



"Master" Type
½" to 2"
0 to 300 lbs.

The Master sizes for larger capacities and general use in power plant service.

The "Steel" pattern for high pressures up to 700 lbs. is really a work of super excellence.

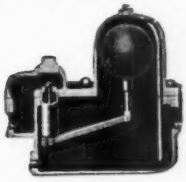


"Combination" Trap
1" to 1¼"
Vacuum to 40 lbs.

The "Combination" Trap is a float type of large capacity, having internal thermostatic air bypass and internal strainer. Is so designed that either thermostatic air bypass and strainer may be omitted, or supplied with outside air vent—also water gauge, if desired. Especially satisfactory on all kinds of vacuum heating services, and all pressures up to 125 lbs. Made with special alloy valve and seat and nickel float.

"Emergency" Trap
½" to 3"
0 to 250 lbs.

The "Emergency" 3-Valve Trap is a float type, which operates on all pressures from 0 to 200 lbs. without change of valves or any adjustment.



"Victor" Trap
½" to 3"
0 to 20 lbs.

The "Victor" is a low pressure float type for extremely large volumes of condensation at low pressures or vacuum. It is also an excellent oil and grease trap because of its very large valve opening.

Send for Literature

WRIGHT-AUSTIN

316 West Woodbridge
DETROIT - - - - - - - - - - - MICHIGAN

Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Trays, Barrow

All Steel Welded Truck Corp., Rockford, Ill.
American Steel Scraper Co., Sidney, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Geuder, Paeschke & Frey Co., Milwaukee.
Lansing Co., Lansing, Mich.
Sterling Wheelbarrow Co., Milwaukee.
Toledo Wheelbarrow Co., The, Toledo, O.

Trays, Tool, Factory

All Steel Welded Truck Corp., Rockford, Ill.
Angle Steel Stool Co., Plainwell, Mich.

Treatment, Water, for Boilers

American Sand Banum Co., Inc., New York, N. Y.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Foster Engineering Co., Newark, N. J.
Oneida Electric Mfg. Co., Green Bay, Wis.
Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Trench Braces

(See "Braces, Trench and Timber")

Trestles, Extension Ladder

Babcock, W. W., Co., The, Bath, N. Y.
Patent Scaffolding Co., The, Chicago, Ill.

Trimmers, Hedge, Electric

Bartlett Mfg. Co., Detroit, Mich.
Dumore Co., The, Racine, Wis.
Skilsaw, Inc., Chicago, Ill.

Trimmers, Lumber

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Corley Manufacturing Co., Chattanooga, Tenn.
Filer & Stowell Co., The, Milwaukee, Wis.
Lane Mfg. Co., Montpelier, Vt.
Memphis Machine Works, Memphis, Tenn.
United States Machine Co., Williamsport, Pa.

Trimmers, Tree

Bartlett Manufacturing Co., Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Klein, M., & Son, Chicago, Ill.
Leach Co., Oshkosh, Wis.

Trimmers, Wood

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Dallett Co., The, Philadelphia, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Perkins & Co., Grand Rapids, Mich.

Tripods, Portable

(See "Derricks or Tripods, Portable")

Trippers, Conveying Belt

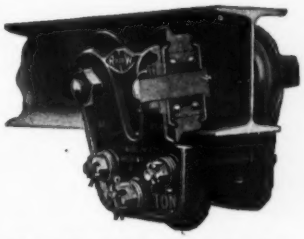
Chain Belt Co., Milwaukee, Wis.
Fairfield Engineering Co., Marion, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Trolleys, Tracks and Tramways, Overhead

American MonoRail Co., Cleveland, Ohio.
American Steel & Wire Co., Chicago, Ill.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Broderick & Bascom Rope Co., St. Louis.
Chain Belt Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
Euclid-Armington Corp., Euclid, Ohio.

R-W TROLLEYS

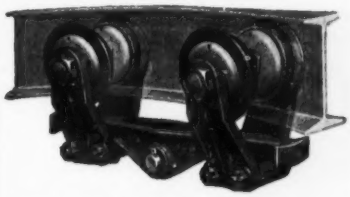
A Complete and Profitable Line FOR YOU



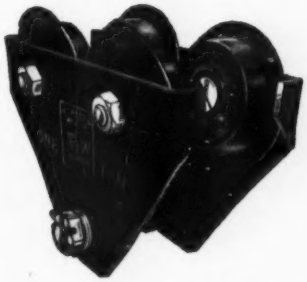
No. 925 Ball-Bearing Trolley

A superior, full ball bearing trolley with chilled tread wheels for loads up to and including four tons capacity.

A production tool where loads must be handled with ease and precision.



The No. 3925 flexible swivel trolley is especially recommended for pushing of loads around short radius curves and for greater ease of operation.



Steel Plate Trolleys

A line of Steel Plate Trolleys equipped with ball bearing pressed steel wheels, priced to meet a demand for infrequent service equipment.

It will pay you to investigate the sales and profit possibilities of the complete R-W line consisting of OveR-Way Trolley Track Systems and Fittings, Heavy Industrial Sliding Door Hardware, Heavy Hinges, Electric Door Operators, etc.

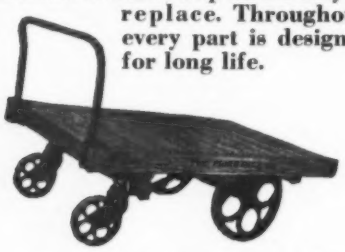
Richards-Wilcox Mfg. Co.
Whatever for any Door that Slides
AURORA, ILLINOIS, U.S.A.

Fairbanks

HAND, PLATFORM and BOX TRUCKS

Fairbanks Improved Hand Trucks are practically everlasting. Every part subject to excessive wear can be renewed easily and cheaply.

They have steel straps on front and back of the well-seasoned wooden frame. Legs and braces are steel. Pressed steel crossbars are set flush into frame, eliminating mortises. Nose iron fits over handle strap and is easy to replace. Throughout, every part is designed for long life.



Rubber-Tired Wheels

Fairbanks Rubber-tired Wheels eliminate noise, prolong the life of trucks and protect floors from wear. They are made of new live rubber and wear indefinitely.

Being equipped with roller bearings they make trucks easier to operate. These wheels can be made to fit any make of truck and cost but little.

No. 500 Rubber-Tired Wheels

Write for Catalog 955 and our special proposition to distributors.

The Fairbanks Co.

19 E. 4th St. New York, N. Y.

Factories: Binghamton, N. Y., Rome, Ga.

Filer & Stowell Co., The, Milwaukee, Wis.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton S., Co., Boston, Mass.
Jeffery Manufacturing Co., The, Columbus, Ohio.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Leschen, A., & Sons Rope Co., St. Louis.
Link-Belt Co., Chicago, Ill.
Maris Brothers, Inc., Philadelphia, Pa.
Mathews Conveyor Co., Ellwood City, Pa.
Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Speidel Elevator Corp., Reading, Pa.
Stanley Works, The, New Britain, Conn.
Starline, Inc., Harvard, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Products, Inc., Newcastle, Ind.
Williamsport Wire Rope Co., Williamsport, Pa.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Troughs, Grindstone, Cast Iron

Western Products, Inc., Newcastle, Ind.

Trowels

Atkins, E. C., and Co., Indianapolis, Ind.
Atlas-Ansonia Co., New Haven, Conn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Manufacturing Co., Wellsburg, W. Va.
Economy Manufacturing Co., Philadelphia.
Foster Engineering Co., Newark, N. J.
Johnson, William, Inc., Newark, N. J.
Marshalltown Trowel Co., Marshalltown, Iowa.
Ohlen-Bishop Co., The, Columbus, Ohio.

Truck Wheel Units

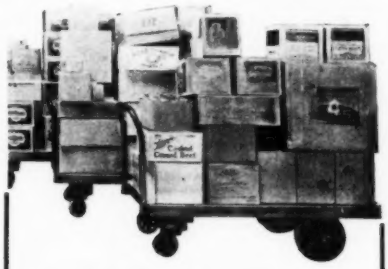
(See "Casters, Truck")

Trucks, Assembly

All Steel Welded Truck Corp., Rockford, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks—Barrel, Bag and Keg

All Steel Welded Truck Corp., Rockford, Ill.
American Pulley Co., The Philadelphia, Pa.
Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Colson Corp., The, Elyria, Ohio.
Elwell-Parker Electric Co., The, Cleveland.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Mountville Mfg. Co., Mountville, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.



SERVICE TRUCKS

A MODERN LINE THAT OFFERS SALES ADVANTAGES

- All steel, this Service Restless Steel Truck, and its 5 sizes gives you an opportunity to make many sales where there are heavy loads to handle.

When you look through the Service Catalog and see the many types all designed to do the best job at lowest handling cost you'll realize that here is your answer for more truck business.

THE SERVICE CASTER & TRUCK COMPANY
ALBION, MICHIGAN

529-N

Schwenk Safety Device Corp., New York, N. Y. (Also carboy trucks)
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Belt Roll

All Steel Welded Truck Corp., Rockford, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co., Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.

Trucks, Box

All Steel Welded Truck Corp., Rockford, Ill.
American Pulley Co., The, Philadelphia.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Colson Corp., The, Elyria, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Co., The, Cleveland, Ohio.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Foster Engineering Co., Newark, N. J.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis, G. B., Co., Watertown, Wis.
Lewis-Shepard Co., Boston, Mass.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.

Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Cargo

(See "Trucks, Railroad and Cargo")

Trucks, Core

All Steel Welded Truck Corp., Rockford, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Elwell-Parker Electric Co., The, Cleveland.
Lyon Iron Works, Greene, N. Y.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Die and Tool

All Steel Welded Truck Corp., Rockford, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Elwell-Parker Electric Co., The, Cleveland, Ohio.
Lyon Iron Works, Greene, N. Y.
Pollard Bros. Mfg. Co., Chicago, Ill.
Service Caster & Truck Co., The, Albion, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

••where SERVICE calls for

Stability

there, in plants all over the country will be seen Lansing Products, moving and handling materials in the least time and at less cost. Such uninterrupted service demands **real stability.**

LANCO STEEL Flat-Nose Truck—Handy for boxes, etc. Shovel-nose slips under load easily. 52" high. Wgt. 70 lbs.

PRESSED STEEL Truck 861 — Heavy duty, pressed steel 8-in. wheels. Hyatt Bearings. 20" wide. 45" high. Wgt. 55 lbs.

REYNOLDS IMPROVED TRUCK
Pneumatic or molded rubber tires, ball-bearing casters, 18 standard sizes, 1200 to 3000-lb. capacity. Gets materials over "rough spots", into elevators, on scales, etc., quickly.

LANSING BULLDOG BARREL TRUCK
Handles all kinds barrels from 26" to 36" high. One man does all work, loading or unloading—without touching barrel—hook and lug does the job. Weighs only 47 lbs. Will last for years.

If you are not already using the Lansing Line—write or wire for full details or complete catalog. Do so TODAY.

LANSING COMPANY
LANSING, MICHIGAN
CHICAGO BOSTON NEW YORK KANSAS CITY SAN FRANCISCO PHILADELPHIA MINNEAPOLIS

"KEEP YOUR PRODUCTS on WHEELS"
Trucks, Trailers, Casters, Tractors, etc.

Economize with American Pressed Steel Trucks

Light in weight, scientifically balanced and easy-running — they stand up under the severest conditions of service. That is because every model is designed for a particular type of job, and their sturdy pressed steel frames take any abuse. The sooner you standardize on these modern hand trucks, the greater your savings. Ask us for catalog today.

The labor saving, floor saving, rubber-tired, roller bearing "American" hand truck wheel.

THE AMERICAN PULLEY COMPANY, PHILADELPHIA, PA.

AMERICAN
PRESSED STEEL
HAND TRUCKS

Trucks, Dolly

All Steel Welded Truck Corp., Rockford, Ill.
American Car and Foundry Co., New York, N. Y.
American Logging Tool Co., Evart, Mich.
Angle Steel Stool Co., Plainwell, Mich.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Colson Corp., The, Elyria, Ohio.
Dixie Logging Tool Co., Chattanooga, Tenn.
Electric Wheel Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hamilton Caster & Mfg. Co., Hamilton, O.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Leach Co., Oshkosh, Wis.
Lewis-Shepard Co., Boston, Mass.
Lyon Iron Works, Greene, N. Y.
Marion Malleable Iron Works, Marion, Ind.
Menasha Wood Split Pulley Co., Menasha, Wis.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Revolvator Co., North Bergen, N. J.
Service Caster & Truck Co., The, Albion, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stimmel Winch Co., Long Island City, N. Y.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Dry Kiln

All Steel Welded Truck Corp., Rockford, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Car and Foundry Co., New York, N. Y.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Elwell-Parker Electric Co., The, Cleveland, Ohio.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.

Grand Rapids Vapor Kiln, Inc., Grand Rapids, Mich.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
National Dry Kiln Co., The, Indianapolis, Ind.
Palmer-Bee Co., Detroit, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Dumping

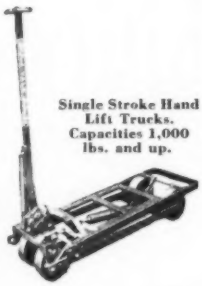
All Steel Welded Truck Corp., Rockford, Ill.
American Car & Foundry Co., New York.
Angle Steel Stool Co., Plainwell, Mich.
Elwell-Parker Electric Co., The, Cleveland, Ohio.
Lyon Iron Works, Greene, N. Y.
Nutting Truck Co., Faribault, Minn.
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Factory and Mill

All Steel Welded Truck Corp., Rockford, Ill.
American Car & Foundry Co., New York.
American Pulley Co., The, Philadelphia.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Barrett-Cravens Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chapman Bearing & Engineering Co., Buffalo, N. Y.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Cleveland Wire Spring Co., The, Cleveland, Ohio.
Colson Corp., The, Elyria, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Crescent Truck Co., Lebanon, Pa.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland, Ohio.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co., Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis, G. B., Co., Watertown, Wis.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Lyon Iron Works, Greene, N. Y.
McElmoyl, W. J., Co., Inc., Groveville, N. J.

TRADE YALE MARK HAND LIFT TRUCKS

Stuebing Line



Single Stroke Hand Lift Trucks. Capacities 1,000 lbs. and up.

Yale Steel-Bound Platforms.

Multi-Stroke Hand Lift Trucks. Capacities up to 20,000 lbs.

Yale Lift Trucks are made in eight models to meet every requirement of industry. Capacities from 1,000 lbs. to 20,000 lbs. single and multiple lift types.

Easy steering, easy rolling, easy lift, hydraulic safety check and other famous Yale features are standard in every truck — and each is guaranteed against defects regardless of years of service. Skid platforms in many varieties to hold all kinds of materials.

Illustrated folders on request

THE YALE & TOWNE MFG. CO.
PHILADELPHIA DIVISION, PHILADELPHIA, PA., U. S. A.
Makers of Yale Hand Chain Hoists, Electric Hoists, Trolleys and Allied Equipment

Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Oliver Machinery Co., Grand Rapids, Mich.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Revolvator Co., North Bergen, N. J.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Truscon Steel Co., Youngstown, Ohio.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks and Tractors, Factory, Electric

Barrett-Cravens Co., Chicago, Ill.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Lansing Co., Lansing, Mich.
Maris Brothers, Inc., Philadelphia, Pa.
Market Forge Co., Everett, Mass.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks and Tractors, Factory, Gasoline

Allis-Chalmers Manufacturing Co., West Allis, Wis. (Tractors only).
Barrett-Cravens Co., Chicago, Ill.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

ORANGEVILLE TRUCKS

"Make heavy loads light and light loads lighter"

Orangeville trucks are designed for quality and service. All types for factory and warehouse service are available, and special trucks built to order. The truck illustrated is for all-around use in store, factory, or warehouse.

Inquiries receive prompt service. Catalogue illustrating complete line of Standard Trucks will be gladly sent on request.

ORANGEVILLE MFG. CO.
ORANGEVILLE, PENNSYLVANIA
Also a complete line of wheels and casters of all sizes for repairs

Trucks, Factory, for Moving Iron, Steel, Pipe, Etc.

All Steel Welded Truck Corp., Rockford, Ill.
American Car & Foundry Co., New York.
Armstrong Truck Co., North Wales, Pa.
Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Crescent Truck Co., Lebanon, Pa.
Electric Wheel Co., Quincy, Ill.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.

Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Towsley, John T., Mfg. Co., The, Cincinnati.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Factory, Transfer or Elevator

All Steel Welded Truck Corp., Rockford, Ill.
Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Colson Corp., The, Elyria, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Crescent Truck Co., Lebanon, Pa.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Lyon Iron Works, Greene, N. Y.
Maris Brothers, Inc., Philadelphia, Pa.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Revolvator Co., North Bergen, N. J.
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Foundry

All Steel Welded Truck Corp., Rockford, Ill.
American Car & Foundry Co., New York.
Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., Columbus, O.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Fairbanks Co., The, New York, N. Y.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Lyon Iron Works, Greene, N. Y.
Marion Malleable Iron Works, Marion, Ind.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Revolvator Co., North Bergen, N. J.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Sterling Wheelbarrow Co., Milwaukee.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Grain

All Steel Welded Truck Corp., Rockford, Ill.
American Pulley Co., The, Philadelphia, Pa.
Armstrong Truck Co., North Wales, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Colson Corp., The, Elyria, Ohio.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Service Caster & Truck Co., The, Albion, Mich.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Lift

(See "Trucks, Factory, Transfer or Elevator")

Trucks, Log

American Car and Foundry Co., New York.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Electric Wheel Co., Quincy, Ill.
Empire Manufacturing Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.

Trucks and Buggies, Lumber

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Electric Wheel Co., Quincy, Ill.
Empire Manufacturing Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Nutting Truck Co., Faribault, Minn.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.

Trucks, Paper Roll

All Steel Welded Truck Corp., Rockford, Ill.
American Pulley Co., The, Philadelphia, Pa.
Armstrong Truck Co., North Wales, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Colson Corp., The, Elyria, Ohio.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Lyon Iron Works, Greene, N. Y.
Marion Malleable Iron Works, Marion, Ind.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Revolvator Co., North Bergen, N. J.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Railroad and Cargo

All Steel Welded Truck Corp., Rockford, Ill.
American Car & Foundry Co., New York.
American Pulley Co., The, Philadelphia, Pa.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Crescent Truck Co., Lebanon, Pa.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Service Caster & Truck Co., The, Albion, Mich.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Scoop

All Steel Welded Truck Corp., Rockford, Ill.
American Car & Foundry Co., New York.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Trucks, Steel Box

All Steel Welded Truck Corp., Rockford, Ill.
American Car & Foundry Co., New York.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Cleveland Wire Spring Co., The, Cleveland, Ohio.
Colson Corp., The, Elyria, Ohio.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Truscon Steel Co., Youngstown, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Warehouse

Advance Car Mover, Inc., Appleton, Wis.
All Steel Welded Truck Corp., Rockford, Ill.
American Pulley Co., The, Philadelphia.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Colson Corp., The, Elyria, Ohio.
Continental-Diamond Fibre Co., Newark.
Crescent Truck Co., Lebanon, Pa.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Lyon Iron Works, Greene, N. Y.
McElmoyl, W. J., Co., Inc., Groveville, N. J.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill. (All steel)
Revolvator Co., North Bergen, N. J.

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Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Welding
(See "Carriages and Trucks, Cutting and Welding")

Trycocks
(See "Columns, Water")

Tubes, Boiler
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bay State Stamping Co., Worcester, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Elermann Floor Scraper Co., The, Brooklyn, N. Y.
Farquhar, A. B., Co., Ltd., York, Pa.
Gerard Mfg. Co., Dickson City, Pa. (Range boiler tubes)
Globe Steel Tubes Co., Milwaukee, Wis.
Keating, E. F., Co., New York, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Pancoast, Henry B., Co., Philadelphia, Pa.
Reading Iron Co., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Chicago, Ill.
Steel and Tubes, Inc., Cleveland, Ohio.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Tubes, Condenser
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Globe Steel Tubes Co., Milwaukee, Wis.
Mueller Brass Co., Port Huron, Mich.
National Tube Co., Pittsburgh, Pa.
Scovill Mfg. Co., Waterbury, Conn.
Steel and Tubes, Inc., (Subsidiary of Republic Steel Corp.) Cleveland, Ohio.
Wolverine Tube Co., Detroit, Mich.

Tubes, Hose Mender
Goodall Rubber Co., Philadelphia, Pa.

Tubes, Superheater
Globe Steel Tubes Co., Milwaukee, Wis.
Keating, E. F., Co., New York, N. Y.
National Tube Co., Pittsburgh, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Steel and Tubes, Inc., (Subsidiary of Republic Steel Corp.) Cleveland, Ohio.

Tubing, Aluminum
Imperial Brass Mfg. Co., Chicago, Ill.
Ivins, Ellwood, Steel Tube Works, Inc., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, Ohio.
Russell Mfg. Co., Middletown, Conn.
Wolverine Tube Co., Detroit, Mich.

Tubing, Asbestos
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Tubing—Brass, Bronze and Copper
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Imperial Brass Manufacturing Co., Chicago, Ill.
Ivins, Ellwood, Steel Tube Works, Inc., Philadelphia, Pa. (Copper only)
Mueller Brass Co., Port Huron, Mich.
National Copper & Smelting Co., Cleveland, Ohio.
Penn Brass & Copper Co., Erie, Pa.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Revere Copper and Brass, Inc., Rome Division, Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

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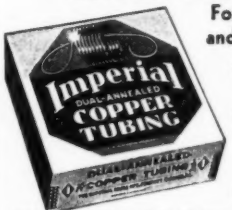

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Wells, A. H., & Co., Inc., Waterbury, Conn.
Wolverine Tube Co., Detroit, Mich.

Tubing Cutters
(See "Cutters, Tubing")

Tubing, Gasket
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Jenkins Bros., New York, N. Y.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
National Lead Co., New York, N. Y.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Manufacturing & Gasket Co., Chicago, Ill.

Tubing, Glass
Basche, Semon, & Co., New York, N. Y.
Corning Glass Works, Corning, N. Y.
Essex Brass Corp., Detroit, Mich.
Friedrich & Dimmock, New York, N. Y.

Tubing, Lead, Small Sizes
Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
U. S. Indestructible Gasket Co., Brooklyn.

Tubing, Metallic, Flexible
(See "Hose or Tubing, Metallic, Flexible")

Tubing, Oil Well
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant, & Co., Inc., Pittsburgh.
Titeflex Metal Hose Corp., Newark, N. J.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Tubing, Refrigeration and Air Conditioning
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Mueller Brass Co., Port Huron, Mich.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Scovill Mfg. Co., Waterbury, Conn.
Wolverine Tube Co., Detroit, Mich.

Tubing, Rubber
Bastian-Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.

Buffalo Weaving & Belting Co., Buffalo, N. Y.
Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Garlock Packing Co., The, Palmyra, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Torchweld Equipment Co., Chicago, Ill.
Whitehead Bros. Rubber Co., Trenton, N. J.

Tubing, Steel

Bethlehem Steel Co., Bethlehem, Pa.
Breeze Corporations, Inc., Newark, N. J.
Cleveland Graphite Bronze Co., The, Cleveland, Ohio.
Frasse, Peter A., & Co., Inc., New York.
Fretz-Moon Tube Co., The, East Butler, Pa.
Globe Steel Tubes Co., Milwaukee, Wis.
Ivins, Ellwood, Steel Tube Works, Inc., Philadelphia, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Parker Appliance Co., The, Cleveland, O.
Sandvik Steel, Inc., New York, N. Y.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant, & Co., Inc., Pittsburgh.
Steel and Tubes, Inc., (Subsidiary of Republic Steel Corp.) Cleveland, Ohio.
Titeflex Metal Hose Co., Newark, N. J.
Toledo Steel Tube Co., The, Toledo, Ohio.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

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Tubs, Mortar

Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Turbines, Steam

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Coppus Engineering Corp., Worcester, Mass.
Dean-Hill Pump Co., Anderson, Ind.
DeLaval Steam Turbine Co., Trenton, N. J.
Fitz Water Wheel Co., The, Hanover, Pa.
General Electric Co., Schenectady, N. Y.
Moore Steam Turbine Corp., Wellsville, N. Y.
Murray Iron Works Co., Burlington, Iowa.
Pomona Pump Co., Pomona, Calif.
Sturtevant, B. F., Co., Boston, Mass.

Turnbuckles

American Steel & Wire Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Boekel, Wm., & Co., Philadelphia, Pa.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Columbus Bolt Works Co., The, Columbus, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Harper, H. M., Co., Chicago, Ill.
Laughlin, Thos., Co., The, Portland, Maine.
McMillan's, W. H., Sons, New York, N. Y.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mockbee, C. M., Cincinnati, Ohio.
Newhall Chain Forge & Iron Co., New York, N. Y.
Pratt, Wm. E., Mfg. Co., Joliet, Ill.
Republic Steel Corp., Cleveland, Ohio.
Roebling's, John A., Sons Co., Trenton, N. J. (Wire rope)
Ryerson, Joseph T., & Son, Chicago, Ill.
Upson Nut Div., Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Turners, Log, for Sawmills

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Memphis Machine Works, Memphis, Tenn.

Turntables, Automobile and Industrial Railway

American Car & Foundry Co., New York.
Canton Foundry & Machine Co., The, Cleveland, Ohio.
Corley Manufacturing Co., Chattanooga, Tenn.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.

Turntables, Overhead

American MonoRail Co., Cleveland, Ohio.
Harrington Co., The, Philadelphia, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Twine

American Manufacturing Co., Brooklyn, N. Y.
Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia, Pa.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hooven & Allison Co., The, Xenia, Ohio.
Rauschenberger, John, Co., Milwaukee.
St. Louis Cordage Mills, St. Louis, Mo. (Sisal and jute)
Samson Cordage Works, Boston, Mass.
Wall Rope Works, Inc., New York, N. Y.

Twine, Asbestos

(See "Yarn and Twine, Asbestos")

Unions, Air Pump

Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Dart, E. M., Mfg. Co., Providence, R. I.
Fairbanks Co., The, New York, N. Y.
Jefferson Union Co., Lexington, Mass.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.
Walworth Co., New York, N. Y.

Unions, Ball Joint

Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Central Forging Co., The, Catawissa, Pa.

TURNBUCKLES
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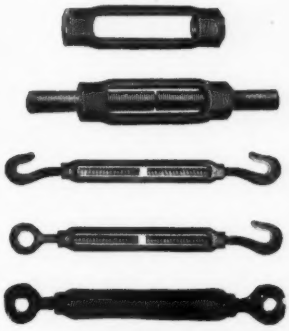

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Crane Co., Chicago, Ill.
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Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Lockport Fittings Co., Inc., Lockport, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Standard Union Co., Inc., Lockport, N. Y.
Walworth Co., New York, N. Y.

Unions, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
Atlas Brass Foundry, Los Angeles, Calif.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Central Forging Co., The, Catawissa, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Darling Valve & Mfg. Co., Williamsport, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Essex Brass Corp., Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
King Union Co., Inc., Hillsgrove, R. I.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Brass Co., Port Huron, Mich.
New York Brass Foundry Co., New York.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Ralco Manufacturing Co., Chicago, Ill.

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Darts give your customers more for their money—*two spherically accurate seats* of special bronze alloy, ground to a true ball joint . and swaged into heavy bodies of special air-refined malleable iron that resist breakage, stretch and thread-distortion. No other union gives them these features. And on that basis—because they're worth more—Darts bring a higher price, bring you higher profits and new customers who stay on your books with steady repeat orders. Tie in with Dart's business-paper advertising, and start making real money in pipe unions. Write for Dart's deal today.

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Canadian Factory: Dart Union Company, Ltd., Toronto, Canada.

Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams, Franklin, Inc., Orange, N. J.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Unions, Brazing

Commonwealth Brass Corp., Detroit, Mich.
Corley Co., The, Jersey City, N. J.
Haydenville Co., The, Haydenville, Mass.
Richardson, Edro, Brass Co., The, Baltimore, Md.

Unions, Cast Iron

Crane Co., Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Dart, E. M., Mfg. Co., Providence, R. I.
Detroit Brass & Malleable Works, Detroit, Mich.
Filer & Stowell Co., The, Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury Manufacturing Co., Monroe, N. Y.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Swett, A. L., Iron Works, Medina, N. Y.
Walworth Co., New York, N. Y.

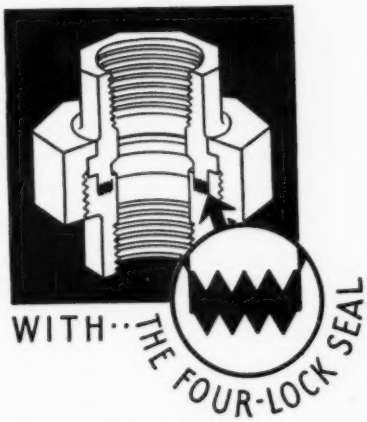
Unions, Flange

Acheson Manufacturing Co., Rankin, Pa.
Central Forging Co., Catawissa, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Detroit Brass & Malleable Works, Detroit.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg. Co., Cleveland, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kuhns Bros. Co., Dayton, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Semler Co., Jeannette, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Unions, Flange, Extra Heavy

Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)

U·S·UNIONS



Heavy duty malleable unions for long, satisfactory service. Cadmium plated inside and out. Stand up under: severe temperature changes and vibration, frequent breaking and remaking, any difficult job up to 400 pounds and 450 degrees (F).

Available also with lead seats for ammonia and process liquids.

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Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Unions, Flared

Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Corley Co., The, Jersey City, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Unions, Hydraulic

Acheson Manufacturing Co., Rankin, Pa.
Central Forging Co., Catawissa, Pa.
Corley Co., The, Jersey City, N. J.
Dart, E. M., Mfg. Co., Providence, R. I.
Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jefferson Union Co., Lexington, Mass.
Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Unions, Malleable Iron

Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.

(Continued on page 334)

FORGED STEEL UNION

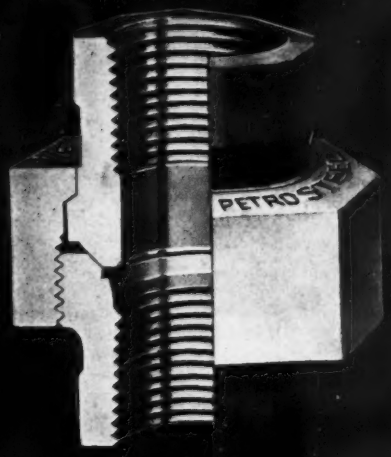
HANDLE BAR

STEEL-to STEEL SEATS

BRASS-to BRASS SEATS

3/8" to 4"

Loosened by hammer instead of wrench



PETRO

STEEL-to-STEEL SEATS

1/8" to 3"

BUILT TO ENDURE

Because they are accurately machined from split die forgings of high-manganese open hearth steel, with extra heavy ends and nuts and with nut-threads permanently lubricated and rust-proofed with Udilyted cadmium, YOUNGSTOWN Forged Steel Unions are impervious to pitting and galling and can be used over and over again. Each of the four types shown on this page has its own particular applications in which its use gives increased safety, lower costs, or both. Write today for complete descriptive folder AM69

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FORGED STEEL TRADE MARK YOUNGSTOWN UNIONS

HYDRO

MARK

UMI

Unions, Malleable Iron

(Continued from page 332)

King Union Co., Inc., Hillsgrove, R. I.
Lockport Fittings Co., Lockport, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Standard Union Co., Inc., Lockport, N. Y.
Stockham Pipe & Fittings Co., Birmingham, Ala.
United Superior Union Co., Inc., Brooklyn.
Walworth Co., New York, N. Y.

Unions, Malleable, Navy

Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Malleable Iron Fittings Co., Branford, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
United Superior Union Co., Inc., Brooklyn.
Walworth Co., New York, N. Y.

Unions, Malleable, Railroad

Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Detroit Brass & Malleable Works, Detroit.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
King Union Co., Inc., Hillsgrove, R. I.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Walworth Co., New York, N. Y.

Unions, Soldering

American Foundry & Mfg. Co., St. Louis.
Commonwealth Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Swett, A. L., Iron Works, Medina, N. Y.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Unions, Steam Hose

Corley Co., The, Jersey City, N. J.
Knox Mfg. Co., Philadelphia, Pa.
Mulconroy Company, Philadelphia, Pa.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Walworth Co., New York, N. Y.

Unions, Steel, Forged

Central Forging Co., The, Catawissa, Pa.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Parker Appliance Co., The, Cleveland, O.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rockwood Sprinkler Co., Worcester, Mass.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Unions, Steel, Pressed

Keating, E. F., Co., New York, N. Y.

Unions, Swing

Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.

Unloaders, Air Compressor

American Air Compressor Corp., Brooklyn, N. Y.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.

Unloaders, Car

Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Tubing & Braiding Co., Maywood, Ill.
Fairfield Engineering Co., Marion, Ohio.
Godfrey Conveyor Co., Elkhart, Ind.
Link-Belt Co., Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Stephens-Adamson Mfg. Co., Aurora, Ill.

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For Industrial Plants, Mills and Factories, Special Process Plants, Water Supply Systems, Fire Protection Systems, Heating Systems, etc.
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Valve Housings

(See "Housings, Valve")

Valve Reseating Tools

(See "Reseating Tools, Valve and Bibb")

Valve Wheels

(See "Wheels, Valve")

Valves, Acid Resisting

(See "Valves, Special Metal")

Valves, Air Gun

American Injector Co., Detroit, Mich.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Essex Brass Corp., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Brass Co., Mansfield, Ohio.
Page Belting Co., Concord, N. H.
Paasche Airbrush Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Air Line

American Air Compressor Corp., Brooklyn, N. Y.
American Car and Foundry Co., New York, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brunner Manufacturing Co., Utica, N. Y.
Briggs & Stratton Corp., Milwaukee, Wis.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
Dixon Valve & Coupling Co., Philadelphia.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hannifin Mfg. Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Marco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
R. S. Products Corp., Philadelphia, Pa.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Air, Radiator

American Radiator Co., New York, N. Y.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
United States Air Compressor Co., Cleveland, Ohio.
Williams, D. T., Valve Co., The, Cincinnati.

Valves, Air, for Water Mains

Automatic Primer Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Keating, E. F., Co., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Manley Manufacturing Div. of American Chain Co., Inc., York, Pa.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

Valves, Air Release, for Water and Oil Lines

American Car and Foundry Co., New York.
Automatic Primer Co., Chicago, Ill.
Buffalo Meter Co., Buffalo, N. Y.
Fairbanks Co., The, New York, N. Y.
Hunt, C. B., & Son, Salem, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

Valves, Alarm, for Sprinkler Systems

Central Automatic Sprinkler Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.

Valves, Altitude

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Schade Valve Mfg. Co., Philadelphia, Pa.

Valves, American Water Works Association Standard

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Marsh, Jas. P., & Co., Chicago, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport.
Walworth Co., New York, N. Y.

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a 2" or a 48" GATE

A 48 - Jenkins Iron Body Gate Valve operated by electric motor control.

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CRITICAL examination of any Jenkins Iron Body Gate Valve reveals the benefits of Jenkins skilled craftsmanship and 70 years of specialization in the manufacture of fine valves. In every size and type are found superiorities of design and construction which provide for exceptional valve service.

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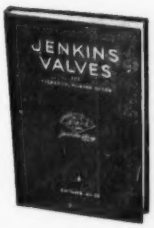

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EVERLASTING

Figure 1000

1. The Everlasting Valve meets all State Boiler Laws and also all conditions of the A.S.M.E. Code.
2. The Everlasting Valve has a straight through blow—is quick-opening and quick-closing—will not stick—saves labor, and avoids trouble and expense.
3. The Everlasting Valve gives continuous, uninterrupted Service, being perfectly self-grinding and self-compensating at all points.
4. The Everlasting Valve flows liquids faster than other types of valves. Operators like it.
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Valves, Ammonia

Atkins, E. C., and Co., Indianapolis, Ind.
Cash, A. W., Valve Mfg. Co., Decatur, Ill.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Kerotest Mfg. Co., Pittsburgh, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Steam Appliance Co., West Allis, Wis.
Nason Manufacturing Co., New York, N. Y.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Anti-Freezing

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Columbian Iron Works, Chattanooga, Tenn.
Haydenville Co., The, Haydenville, Mass.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Valves, Back Pressure

Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, O.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Morrison Bros., Dubuque, Iowa.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Sight Feed Generator Co., Richmond, Ind.
Walworth Co., New York, N. Y.

Valves, Balanced Lever

Belfield, H., Co., Philadelphia, Pa.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Davis Regulator Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., Mount Gilead, O.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Nason Manufacturing Co., New York, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Swartwout Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Watts Regulator Co., Lawrence, Mass.

Valves, Blow-Off

Alloy Steel Products Co., Linden, N. J.
American Car and Foundry Co., New York, N. Y.
American Radiator Co., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roots-Connersville Blower Corp., Connersville, Ind.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Tessmer Machine & Tool Co., Detroit, Mich.
United States Air Compressor Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Valves, Blower

Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Leiman Bros., Inc., Newark, N. J.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., Brooklyn, N. Y.

KENNEDY
Bronze Valves

Globe
Gate
Angle
Check

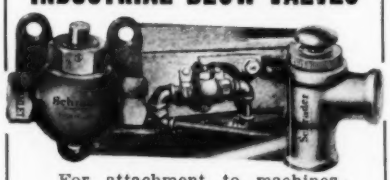
Regrinding and Removable Discs

THE KENNEDY VALVE MFG. CO.
ELMIRA, N.Y.
WAREHOUSES IN PRINCIPAL CITIES

Valves, Brass or Bronze—Angle, Gate, Check and Globe

American Injector Co., Detroit, Mich.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa. (Angle, check and globe)
Bordo, L. J., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Central Valve Mfg. Co., Chicago, Ill.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Elkhart Brass Mfg. Co., Elkhart, Ind. (Angle and gate)
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Haydenville Co., The, Haydenville, Mass.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y. (Angle and globe, bronze)
Lunkenheimer Co., The, Cincinnati, Ohio.
Mark, Clayton, & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.

INDUSTRIAL BLOW VALVES



For attachment to machines where intermittent blasts of air are useful for cooling, for clearing chips, for discharging completed articles, etc. Either valve may be operated with automatic tripping devices.

Schrader
REG. U. S. PAT. OFF.
A. SCHRADER'S SON, BROOKLYN, N. Y.
Division of Scovill Manufacturing Company Incorporated

Valves of BRONZE IRON and STEEL...

PRATT & CADY Valves of Bronze and Iron, and READING Cast Steel Valves and Fittings are known everywhere for both *quality* and *service*. Good materials, good designs and good workmanship keeping pace with industrial progress, make it possible to supply every normal valve need from the READING-PRATT & CADY line. Important jobbing connections covering the entire country make READING-PRATT & CADY products available everywhere. Fifty years of experience is your surety of satisfaction.

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Moak Machine & Tool Co., Port Huron, Mich.
Morrison Bros., Dubuque, Iowa.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Pancoast, Henry B., Co., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Randle Machinery Co., The, Cincinnati, O. (Angle, check and globe)
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit, Mich.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, D. T., Valve Co., The, Cincinnati.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Brass or Bronze—Renewable Composition Disc

American Injector Co., Detroit, Mich.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Gorton Heating Corp., Cranford, N. J.
Haydenville Co., The, Haydenville, Mass.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., Cleveland, Ohio.
Scott Valve Manufacturing Co., Detroit, Mich.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Butterfly

Alloy Steel Products Co., Linden, N. J.
Belfield, H., Co., Philadelphia, Pa.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.

Valves, By-Pass

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.

Fairbanks Bronze and Iron Valves

Fairbanks Valves are made in globe, angle, gate, check and ball types—in both bronze and iron—for practically every steam, water, air, oil and acid condition, for pressures from 125 to 350 lbs.

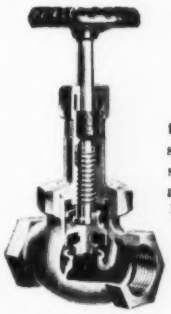

Fig. U-01, Bronze Globe, Union Bonnet

Renewable composition disc. 150 lbs. steam working pressure. Also made in angle pattern. Sizes, ⅛ to 3 in.

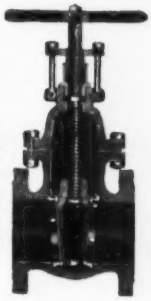

Fig. 0302 Iron Body Gate

Renewable seat rings, solid wedge pattern. Stationary spindle. 150 lbs. steam working pressure. Made in Standard, Heavy and Extra Heavy pattern. Also made with screwed ends. Sizes, 2 to 16 in.

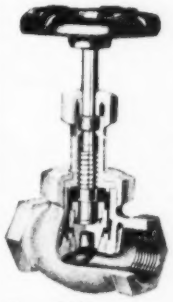

Fig. 0501-P, Bronze Regrinding Globe

Plug type. Renewable nickel alloy seat and disc. 200 lbs. steam working pressure. Also made in angle pattern. Sizes, ¼ to 3 in.

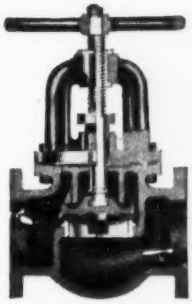

Fig. 0101, Iron Body Globe

Renewable composition or regrinding disc. 150 lbs. steam working pressure. Also made in angle type and in Heavy and Extra Heavy pattern. Sizes, 2 to 8 in.

Our catalog No. 21 illustrates and describes more than 140 different types of valves. Write for a copy and our special proposition to distributors.

THE FAIRBANKS COMPANY
19 East 4th St., New York, N. Y.
Factories: **Binghamton, N. Y., Rome, Ga.**

VALVES for HIGH PRESSURE SERVICE

BRONZE
•
CAST STEEL
•
FORGED STEEL

Sizes in the standard lines range from ⅛" to 3".

Watson-Stillman Valves, for pressures of 2,000 pounds to 6,000 pounds per square inch, are available in the following types:—

STOP VALVES
•
CHECK VALVES
•
SAFETY VALVES
•
BY-PASS VALVES
•
OPERATING VALVES

These valves are designed to meet the requirements exacted of valves in high pressure service. Material of the best quality is used in their construction, by skilled workmen. In use they will give long, dependable and efficient service.

The
WATSON-STILLMAN CO.
100 ALDENE ROAD
ROSELLE, N. J.

Fairbanks Co., The, New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hennebohle, Frank, Chicago, Ill.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Morrison Bros., Dubuque, Iowa.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Cast Iron or Semi-Steel—Globe, Gate, Angle and Check

American Radiator Co., New York, N. Y.
Belfield, H., Co., Philadelphia, Pa. (Globe, angle and check)
Brunswick-Kroeschell Co., New Brunswick, N. J.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Hinman, D. A., & Co., Inc., Sandwich, Ill. (Cast iron horizontal check)
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit, Mich.
Trill Indicator Co., Corry, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Cast Iron, Non-Return, or Stop and Check

American Radiator Co., New York, N. Y.
Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davis Regulator Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Hinman, D. A., & Co., Inc., Sandwich, Ill. (Horizontal)
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio
M & H Valve & Fittings Co., Anniston, Ala.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

KENNEDY
Cast-Iron Valves

All types, sizes and pressures for every service

THE KENNEDY VALVE MFG. CO.
ELMIRA, N.Y.
WAREHOUSES IN PRINCIPAL CITIES

Valves, Check, Air

American Air Compressor Corp., Brooklyn, N. Y.
American Radiator Co., New York, N. Y.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Foster Engineering Co., Newark, N. J.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Morrison Bros., Dubuque, Iowa.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Scott Valve Manufacturing Co., Detroit.
Trill Indicator Co., Corry, Pa.
United States Air Compressor Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams Gauge Co., The, N. S., Pittsburgh.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Check, Locomotive Line

Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Jenkins Bros., New York, N. Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Check, Vertical

Alloy Steel Products Co., Linden, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Decatur Pump Co., Decatur, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.

Lunkenheimer Co., The, Cincinnati, Ohio.
Mark, Clayton, & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Ohio Brass Co., Mansfield, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Rumsey Pump Corp., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.

Valves, Choke, Oil Line

Walworth Co., New York, N. Y.

Valves, Chronometer

Fisher Governor Co., The, Marshalltown, Iowa.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Judson Governor Co., The, Rochester, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Scott Valve Manufacturing Co., Detroit, Mich.

Valves, Coke Oven

American Car and Foundry Co., New York, N. Y.
Bartlett Hayward Co., The, Baltimore, Md.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Merco Nordstrom Valve Co., San Francisco, Calif.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati Ohio.

Valves, Controlling, Waterworks Supply

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fisher Governor Co., The, Marshalltown, Iowa.
Foxboro Co., The, Foxboro, Mass.
Hays Manufacturing Co., Erie, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Cross, Brass and Bronze

Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Cross, Iron Body

Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.

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The completeness of the Lunkenheimer Line enables you to constantly drive home "Standardization on Lunkenheimer." Sell your customers the idea of filling all their valve, boiler mounting and lubricating device needs with Lunkenheimer Products.

The name "Lunkenheimer" under the many listings in this directory is evidence of your ability to serve adequately the varied needs of your customers.

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Bronze, Iron, Steel; Globe, Angle, Cross, Check, Gate, Throttle, Non-return, Blow-off, Pop Safety, Relief, Lubricated, Whistle, etc.

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Non-return, Pop Safety and Blow-off Valves; Water Columns, Water Gauges and Gauge Cocks, Low Water Alarms, Fusible Plugs.

LUBRICATORS
For Steam, Gas, Gasoline, Oil, Compressor and Pump Cylinders; Gravity Feed or Hydrostatic.

OIL & GREASE CUPS
Glass, Bronze or Aluminum Body Oil Cups; Bottle Oilers; "Alvor" Constant Level Oil Controls; Automatic Feed, Cap or Plunger Screw Feed Grease Cups of Bronze, Iron or Steel.

ALSO COCKS, UNIONS, WHISTLES, AIR DEVICES, ETC.

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EXPORT DEPT. 318-322 HUDSON ST., NEW YORK

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Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

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Central Automatic Sprinkler Co., Philadelphia, Pa.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I.
Hersey Manufacturing Co., Boston, Mass.
Jenkins Bros., New York, N. Y.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Brass Co., Port Huron, Mich.
Walworth Co., New York, N. Y.

Valves, Electric Motor Operated

American Car and Foundry Co., New York, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind. (3-Way Valves)
Barber-Colman Co., Rockford, Ill.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davis Regulator Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
R. S. Products Corp., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Electro-Magnetic

Atkins, E. C., and Co., Indianapolis, Ind.

Valves, Exhaust Relief, Automatic

Bastian-Morley Co., LaPorte, Ind.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kennedy Valve Manufacturing Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schutte & Koerting Co., Philadelphia, Pa.
Sutorbilt Corp., Los Angeles, Calif.
Walworth Co., New York, N. Y.

Valves, Extra Heavy, for High Pressures

Bastian-Blessing Co., Chicago, Ill.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Central Valve Mfg. Co., Chicago, Ill.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hays Manufacturing Co., Erie, Pa.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
M & H Valve & Fittings Co., Anniston, Ala.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sargent Co., Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Fire Line

Allen, W. D., Mfg. Co., Chicago, Ill.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Ohio Injector Co., The, Wadsworth, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Safety Fire Extinguisher Co., The, New York, N. Y.
Scully Steel & Iron Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Valves, Flap and Shear

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.

Valves, Float

Atkins, E. C., and Co., Indianapolis, Ind.
Belfield, H., Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Hinman, D. A., & Co., Inc., Sandwich, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mark, Clayton, & Co., Chicago, Ill.
Midland Mfg. Co., Ft. Worth, Tex.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Perkes, Charles, Co., Philadelphia, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Valves, Flushing

Acheson Manufacturing Co., Rankin, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Baltimore Valve Corp., Baltimore, Md.
Crane Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Rockford Brass Works, Rockford, Ill.

Valves, Foot, and Strainers

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Decatur Pump Co., Decatur, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Ohio Brass Co., Mansfield, Ohio.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rumsey Pump Corp., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.
Vogt Brothers Mfg. Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Freon, Electrically Operated

Atkins, E. C., and Co., Indianapolis, Ind.

Valves, Gas Gate

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Valves, Gas, Natural

American Car and Foundry Co., New York.
Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Valves, Gas or Oil, Automatic Cut-off

Atkins, E. C., and Co., Indianapolis, Ind. (Electric operated cut-off)
Cash, A. W., Valve Mfg. Co., Decatur, Ill.
Davis Regulator Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Powell, Wm., Co., The, Cincinnati, Ohio.
R. S. Products Corp., Philadelphia, Pa.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Gas Plant

American Car and Foundry Co., New York.
Barco Manufacturing Co., Chicago, Ill.
Bartlett Hayward Co., The, Baltimore, Md.
Bastian-Blessing Co., Chicago, Ill.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Company, The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Gas Regulating

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
R. S. Products Corp., Philadelphia, Pa.
Sight Feed Generator Co., Richmond, Ind.
Torchweld Equipment Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.

Valves, Gas Relief

Bastian-Blessing Co., Chicago, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.

Valves, Gasoline

American Car and Foundry Co., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Lubricator Co., Detroit, Mich.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Mueller Brass Co., Port Huron, Mich.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.

Valves, Gate, Swing

Columbian Iron Works, Chattanooga, Tenn.
Kennedy Valve Mfg. Co., Elmira, N. Y.

Valves, Gate, Waterworks

American Foundry & Mfg. Co., St. Louis.
Bordo, L. J., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich. (Gate only)
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Vogt Brothers Mfg. Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Gear Controlled

American Car and Foundry Co., New York, N. Y.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Globe, Lock and Shield

Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Haydenville Co., The, Haydenville, Mass.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rockford Brass Works, Rockford, Ill.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Hard Rubber

Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Darcoid Co., Inc., New York, N. Y.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.

Valves, High Pressure, for Oxygen and Carbonic Acid Gas

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hunt, C. B., & Son, Salem, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York.
Kerotest Manufacturing Co., Pittsburgh.
Linde Air Products Co., The, Unit of Union Carbide and Carbon Corp., New York.
Mueller Brass Co., Port Huron, Mich.
Parker Appliance Co., The, Cleveland, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sight Feed Generator Co., Richmond, Ind.
Torchweld Equipment Co., Chicago, Ill.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Darling Valve & Mfg. Co., Williamsport, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Hunt, C. B., & Son, Salem, Ohio.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Scott Valve Manufacturing Co., Detroit.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Hydrant

Bordo, L. J., Inc., Glenside, Pa.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Dick, R. & J., Co., Inc., Passaic, N. J.
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Home Rubber Co., Trenton, N. J.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mueller Co., Decatur, Ill.
Philadelphia Belting Co., Philadelphia, Pa. (Leather)
Victor Balata & Textile Belting Co., New York, N. Y.
Vogt Brothers Mfg. Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Hydraulic—Gate, Globe, Angle and Check

Belfield, H., Co., Philadelphia, Pa. (Globe, angle and check)
Brunswick-Kroeschell Co., New Brunswick, N. J.
Cardwell Machine Co., The, Richmond, Va.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Dudgeon, Richard, Inc., New York, N. Y.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill. (Check valves only)
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lourie Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Morrison Bros., Dubuque, Iowa.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, D. T., Valve Co., The, Cincinnati.
Yarnall-Waring Co., Philadelphia, Pa.

Valves, Hydraulically Operated

Bartlett Hayward Co., The, Baltimore, Md.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.

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Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown Iowa.
Foster Engineering Co., Newark, N. J.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Indicator

American Car and Foundry Co., New York, N. Y.
American Foundry & Mfg. Co., St. Louis.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Consolidated Brass Co., Detroit, Mich.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davison Combustion Co., Pittsburgh, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hays Manufacturing Co., Erie, Pa.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Inlet, Packless

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Everlasting Valve Co., Jersey City, N. J.
Gorton Heating Corp., Cranford, N. J.
Grinnell Co., Inc., Providence, R. I.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Brass Co., Port Huron, Mich.
Sarco Co., Inc., New York, N. Y.

Valves and Fittings, Irrigation

Illinois Malleable Iron Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Walworth Co., New York, N. Y.

Valves, Lead and Lead Lined

National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Schutte & Koerting Co., Philadelphia, Pa.

Valves, Locking

Bordo, L. J., Co., Inc., Glenside, Pa.
Everlasting Valve Co., Jersey City, N. J.
Hays Manufacturing Co., Erie, Pa.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Lubricated

American Car and Foundry Co., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Merco Nordstrom Valve Co., San Francisco.
Mueller Co., Decatur, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.

Valves, Marine

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Mixing

(See "Cocks and Valves, Mixing")

Valves, Needle

Bastian-Blessing Co., Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Non-Metallic Disc—Globe, Angle, Check and Quick Operating

(See also "Valves, Brass or Bronze—Renewable Composition Disc" and "Valves, Quick Opening and Closing")

Alloy Steel Products Co., Linden, N. J.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Hunt, C. B., & Son, Salem, Ohio.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport.

Valves, Offset

Bastian-Blessing Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.

Valves for Oil Burning Furnaces

Bastian-Blessing Co., Chicago, Ill.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Efficiency Engineering Co., Boston, Mass.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., New York, N. Y.
Gorton Heating Corp., Cranford, N. J.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport.
Hauck Manufacturing Co., Brooklyn, N. Y.
Haydenville Co., The, Haydenville, Mass.
Imperial Brass Mfg. Co., Chicago.
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mercoid Corp., The, Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
R. S. Products Corp., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Walworth Co., New York, N. Y.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Packless

Atkins, E. C., and Co., Indianapolis, Ind.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Hannifin Mfg. Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.

Valves, Plug

(See "Cocks, Plug")

Valves, Plug Type, Globe and Angle

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Hennebohle, Frank, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Scott Valve Mfg. Co., Detroit, Mich.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Pop Safety

American Radiator Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Consolidated Brass Co., Detroit.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Keating, E. F., Co., New York, N. Y.

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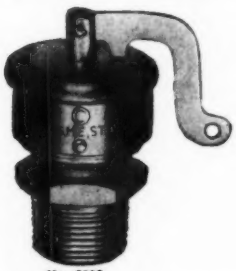
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Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Scott Valve Manufacturing Co., Detroit.
Sight Feed Generator Co., Richmond, Ind.
Simplex Spray Equipment Co., Chicago.
Walworth Co., New York, N. Y.

Valves, Pressure Reducing and Regulating

Air Reduction Sales Co., New York, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind. (Electro hydraulic controlled)
Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Columbian Iron Works, Chattanooga, Tenn.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Hannifin Manufacturing Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Parker Appliance Co., The, Cleveland, O.
Penberthy Injector Co., Detroit, Mich.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Simplex Spray Equipment Co., Chicago.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Watson-Stillman Co., The, Roselle, N. J.
Watts Regulator Co., Lawrence, Mass.

Valves, Pump—Leather, Rubber, Fibre and Composition

Belmont Packing & Rubber Co., Philadelphia, Pa.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Cook, H. N., Belting Co., San Francisco.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.

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Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mark, Clayton, & Co., Chicago, Ill.
Mechanical Rubber Co., The, Passaic, N. J.
Michigan Leather Packing Co., Detroit.
New York Belting & Packing Co., Passaic, N. J.
Nott, W. S., Co., Minneapolis, Minn.
Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
Philadelphia Belting Co., Philadelphia, Pa. (Leather)
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
U. S. Indestructible Gasket Co., Brooklyn.
Walworth Co., New York, N. Y.
Whitehead Bros. Rubber Co., Trenton, N. J.
Williams Gauge Co., The, N. S. Pittsburgh.

Valves, Pump Regulating

Brown & Sharpe Mfg. Co., Providence, R. I.
Burrows, F. A., Co., York, Pa.
Cardwell Machine Co., The, Richmond, Va.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Walworth Co., The, New York, N. Y.
Watts Regulator Co., Lawrence, Mass.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Quick Opening and Closing

American Car and Foundry Co., New York, N. Y.
Bordo, L. J., Co., Inc., Glenside, Pa.
Briggs & Stratton Corp., Milwaukee, Wis.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davis Regulator Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Gorton Heating Corp., Cranford, N. J.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Libert Machine Co., Green Bay, Wis.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh Valve Co., Dunkirk, N. Y.
Merco Nordstrom Valve Co., San Francisco.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Morrison Bros., Dubuque, Iowa.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm. Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
R. S. Products Corp., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Schutte & Koerting Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.

Valves, Radiator, Air, Automatic

American Radiator Co., New York, N. Y.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.

Valves, Radiator, Graduated

American Radiator Co., New York, N. Y.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
D. G. C. Trap & Valve Co., Inc., New York.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Grinnell Co., Inc., Providence, R. I.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Keating, E. F., Co., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Sarco Co., Inc., New York, N. Y.
Walworth Co., New York, N. Y.

UMI

Valves, Radiator, Packless

American Radiator Co., New York, N. Y.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
D. G. C. Trap & Valve Co., Inc., New York.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Keating, E. F., Co., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sarco Co., Inc., New York, N. Y.

Valves, Radiator, Steam

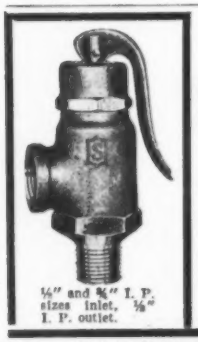
American Radiator Co., New York, N. Y.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
General Brass Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Grinnell Co., Inc., Providence, R. I.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sarco Co., Inc., New York, N. Y.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Reducing-Steam, Air and Hydraulic

(See "Valves, Pressure Reducing and Regulating")

Valves, Relief

American Radiator Co., New York, N. Y.
Automatic Primer Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bastian-Morley Co., LaPorte, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.



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Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Sight Feed Generator Co., Richmond, Ind.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Sutorbilt Corp., Los Angeles, Calif.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Safety, Shut-Off

Bastian-Blessing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Diamond Iron Works, Inc., Minneapolis.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Hennebohle, Frank, Chicago, Ill.
Hunt, C. B., & Son, Salem, Ohio.
Jenkins Bros., New York, N .Y.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Scott Valve Manufacturing Co., Detroit.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Safety, for Welding Equipment

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Hunt, C. B., & Son, Salem, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Sight Feed Generator Co., Richmond, Ind.
Victor Equipment Co., Victor Welding Equipment Division, San Francisco.

Valves, Semi-Steel—Globe, Gate, Angle and Check

(See "Valves, Cast Iron or Semi-Steel—Globe, Gate, Angle and Check")

Valves, Siamese

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.

Valves, Sluice

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Hennebohle, Frank, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.

Valves, Solenoid

Cutler-Hammer Mfg. Co., Milwaukee, Wis.
Edward Valve Mfg. Co., East Chicago, Ind.
Essex Brass Corp., Detroit, Mich.
General Electric Co., Schenectady, N. Y.
Hannifin Manufacturing Co., Chicago, Ill.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Michigan Smelting & Refining Co., Detroit.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.

Valves, Special Metal

Alloy Steel Products Co., Linden, N. J.
Ampco Metal, Inc., Milwaukee, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco, Calif.
National Lead Co., New York, N. Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schutte & Koerting Co., Philadelphia.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

Valves, Stainless Steel

Alloy Steel Products Co., Linden, N. J.

Valves, Standpipe

Allen, W. D., Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Steam Feed, Sawmill

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Fairbanks Co., The, New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.

Valves, Steel, Cast—Globe, Gate, Angle and Check

Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Steel, Forged—Globe, Gate, Angle and Check

Central Forging Co., The, Catawissa, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.

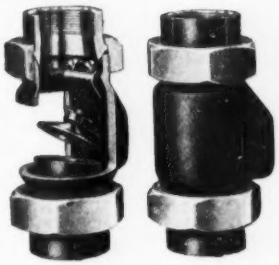
(Continued on page 346)

CATAWISSA UNION
SWING CHECK VALVES
ACCESSIBLE—EFFICIENT ECONOMICAL

They are more easily accessible than any other type Swing Check Valves which means that THEY CAN BE REPAIRED OR CLEANED in the line with practically no loss of time.

They have no openings in the body other than those communicating directly with the pipe ends. This eliminates the possibility of leakage through body openings often experienced in the use of other Valves.

And are priced as low or lower than the lowest priced I. B. B. M. Swing Check Valves in their pressure class ELIMINATING THE UNION AND NIPPLE necessary to install the regular type Check.



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THE CENTRAL FORGING CO. CATAWISSA, PENNA.

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This issue of MILL SUPPLIES—the Directory Edition—is one of the services offered to industrial supply houses throughout the country. At your finger tips at all times, it is an invaluable aid to you in your buying activities—another weld in the chain that makes the supply house an indispensable factor in the distribution of industrial supplies and equipment, machinery and tools to the industrial user.

MILL SUPPLIES

"The Magazine for Distributors and Their Salesmen"

UMI

Valves, Steel, Forged—Globe, Gate, Angle and Check

(Continued from page 345)

Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Schutte & Koerting Co., Philadelphia.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Stop, Emergency

Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Diamond Iron Works, Inc., Minneapolis.
Everlasting Valve Co., Jersey City, N. J.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schutte & Koerting Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.

Valves, Thermostatic

American Injector Co., Detroit, Mich.
Bastian-Morley Co., LaPorte, Ind.
Bristol Co., The, Waterbury, Conn.
Crane Co., Chicago, Ill.
Gorton Heating Corp., Cranford, N. J.
Klipfel Manufacturing Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Powers Regulator Co., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Valves, 3-Way and 4-Way

American Car and Foundry Co., New York, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind. (3-Way electrically operated)
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hannifin Manufacturing Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa. (3-way only)
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Judson Governor Co., The, Rochester, N. Y.
Keating, E. F., Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Brass Co., Port Huron, Mich.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Ruemelin Mfg. Co., Milwaukee, Wis.
Skinner Chuck Co., The, New Britain, Conn.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa. (Hydraulic operating)
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Throttle

Clow, James B., & Sons, Chicago, Ill.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Foster Engineering Co., Newark, N. J.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Hennebohle, Frank, Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Klingerit, Inc., New York, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Underwriters'

Allen, W. D., Mfg. Co., Chicago, Ill.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
General Brass Co., Detroit, Mich.
Grinnell Co., Inc., Providence, R. I.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roper, Geo. D., Corp., Rockford, Ill.
Safety Fire Extinguisher Co., The, New York, N. Y.
Walworth Co., New York, N. Y.

Valves, Vacuum

American Car and Foundry Co., New York, N. Y.
Belfield, H., Co., Philadelphia, Pa.
Detroit Lubricator Co., Detroit, Mich.
Efficiency Engineering Co., Boston, Mass.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Hoffman Specialty Co., Inc., Waterbury, Conn.
Hunt, C. B., & Son, Salem, Ohio.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Leiman Bros., Inc., Newark, N. J.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas P., & Co., Chicago, Ill.
Merco Nordstrom Valve Co., San Francisco.
Milwaukee Valve Co., Milwaukee, Wis.
New York Brass Foundry Co., New York.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roots-Connersville Blower Corp., Connersville, Ind.

Valves, Whistle

General Electric Co., Schenectady, N. Y.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Brass Co., Mansfield, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schultz, A. L., & Son, Chicago, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Valves, Y

Alloy Steel Products Co., Linden, N. J.
Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co, The, Cincinnati.

Variable Speed Transmissions

(See "Transmissions, Variable Speed")

Varnishes

Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Horn, A. C., Co., Long Island City, N. Y.
Rinald, H., Co., W. Philadelphia, Pa.
Sherwin-Williams Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence.
Vita-Var Corp., Newark, N. J.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.

Ventilators, Power Roof

National Fan & Blower Corp., Chicago, Ill.

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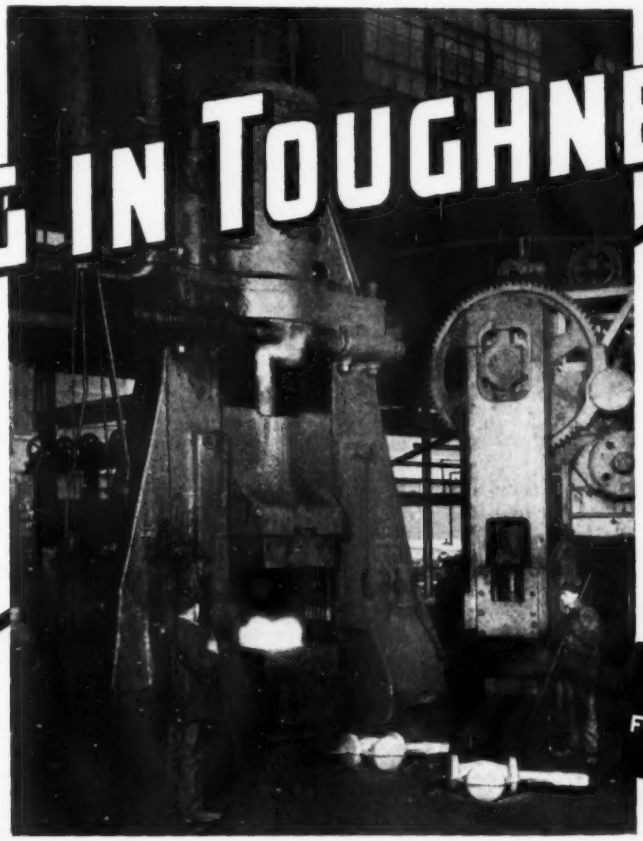
MILL SUPPLIES

"The Magazine for DISTRIBUTORS and Their SALESMEN"

BEATING IN TOUGHNESS



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Extra strength and endurance has marked the products of the forge since the days of Tubalcain—the first smith.

Here at Vogt, glowing steel, heated in automatically controlled furnaces, is kneaded and compacted by mammoth forging hammers. The mightiest efforts of puny man are multiplied, thousands of times over, in beating toughness and endurance IN.

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CINCINNATI KANSAS CITY DALLAS

STEEL VALVES *and* FITTINGS

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PARKER "FILERS" VISES

No.	Weight Lbs.	Jaw In.	Vise Opens	List
SWIVEL BASE				
44	44	4	3	$16.50
‡278	52	4	5½	24.00
STATIONARY BASE				
42	35	4	3	$13.50

‡ No. 278 is Top Swivel Jaw Model

THE CHARLES PARKER CO.
Meriden, Conn.

Vise and Anvil Combined
(See "Anvil and Vise Combined")

Vise, Anvil and Drill Combined
(See "Anvil, Vise and Drill Combined")

Vise Jaws
(See "Jaws, Vise")

Vise Mounts
(See "Mounts, Vise")

Vise—Square End Sawing for Tubing

Beaver Pipe Tools, Inc., Warren, Ohio.
Trimont Mfg. Co., Inc., Roxbury, Boston.

Vises, Bench

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Tool & Engineering Co., Chicago, Ill.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Erie Tool Works, The, Erie, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Luther Grinder & Tool Co., Milwaukee.
Millers Falls Co., Greenfield, Mass.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Morgan Vise Co., Chicago, Ill.
North Bros. Mfg. Co., Philadelphia, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Ridge Tool Co., The, Elyria, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sampson Tool Co., Inc., New York, N. Y.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Wallace, J. D., & Co., Chicago, Ill.
Western Hdwe. Mfg. Co., Milwaukee, Wis.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Blacksmiths' and Solid Box
(See "Vises, Solid Box")

Vises, Carpenters'
(See "Vises, Woodworkers'")

Vises, Clamp Base

Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Erie Tool Works, The, Erie, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Luther Grinder & Tool Co., Milwaukee.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Prentiss Vise Co., New York, N. Y.
Ridge Tool Co., The, Elyria, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises—Drill Press, Miller, Planer and Shaper

Armstrong-Blum Mfg. Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Athol Machine & Foundry Co., Athol, Mass.
Brown Engineering Co., Reading, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Tool & Engineering Co., Chicago.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
Illinois Tool Works, Chicago, Ill.
Knight, W. B., Machinery Co., St. Louis.
Modern Machine Tool Co., Jackson, Mich.
Mohn Machine Co., Reading, Pa.
Morgan Vise Co., Chicago, Ill.
National Machine Tool Co., Racine, Wis.
North Bros. Mfg. Co., Philadelphia, Pa.
Noyes, B. B., Co., Greenfield, Mass.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Yost Manufacturing Co., Meadville, Pa.

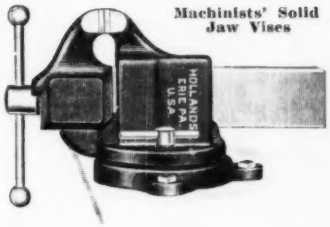
Vises, Filers'

American Chain Co., Inc., Bridgeport, Conn.
Atkins, E. C., and Co., Indianapolis, Ind.
Columbian Vise & Mfg. Co., The, Cleveland.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Disston, Henry, & Sons, Inc., Philadelphia.
Hollands Mfg. Co., Erie, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.

Vises, Hand and Pin

American Chain Co., Inc., Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lowell Wrench Co., Worcester, Mass.
Millers Falls Co., Greenfield, Mass.

HOLLANDS MACHINISTS' VISES



Machinists' Solid Jaw Vises

Strong, Rigid and Durable. Welded Steel Jaw Faces, carefully tempered and machine corrugated. Will not become loose nor lose their gripping power. Heavy Malleable Nuts carefully aligned, so screws will not bind. Strong steel screws with smooth cut acme pitch threads and electric-welded steel heads. Long Body construction with flat finished bottoms. All parts interchangeable.

Made in SOLID JAWS, STATIONARY AND SWIVEL BASE TYPES also SWIVEL JAW, SWIVEL BASE TYPE.

Send for catalog No. 36.

HOLLANDS MFG. CO.
Erie, Pa.

Vises, Machinists'

American Chain Co., Inc., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.

(Continued on page 350)

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MILL SUPPLIES

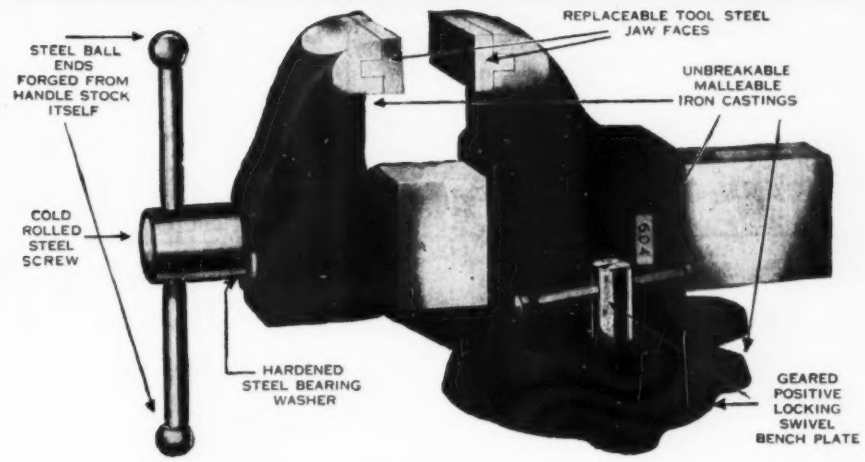
"The Magazine for Distributors and Their Salesmen"

COLUMBIAN

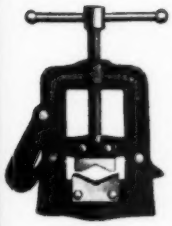
Malleable Iron Machinists' Vises are Designed to Insure Strength, Accuracy and Durability

They are dependable! Columbian Machinists' Vises embody special features that make them that way . . . unbreakable Malleable Iron Castings . . replaceable Tool Steel Jaw Faces . . hardened Steel Thrust Washers . . . cold rolled steel Screws and Handles (with forged ball-ends) . . . oversize Malleable Iron Nuts . . and a Positive Locking Device for swivel base models.

Columbian Vises are sold under a Policy which guarantees 100% protection to Distributors . . . a Policy based upon selective distribution . . . they are sold at established Resale Prices which guarantee Profits to Columbian Distributors.



Increase your Profits . . Concentrate your Sales
Sell Columbian . . . the Complete Line of Vises



—Machinists'
—Bodymakers'
—Woodworkers'
—Blacksmiths'
—Heavy Chipping
—Combination
—Hinged Pipe
—Clamp Base
—Home Shop
—Steel Clamps

All sold through
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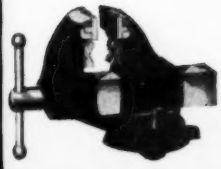

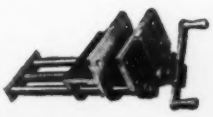

COLUMBIAN VISES

Sold Through Industrial Supply Distributors

The Columbian Vise & Manufacturing Co.

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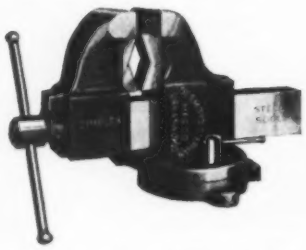
SIMPLEX STEEL SLIDE VISES

The only 100% steel slide vise. Stronger and more serviceable than iron slide vises.



Simplex Vises are sold only through distributors, who receive full co-operation.

We manufacture a complete line of Machinists', Combination Pipe and Utility Vises.

Write to-day for your copy of our new vise catalog and discount sheet.

The DESMOND-STEPHAN MFG. CO.

URBANA, OHIO

ARMSTRONG BROS.

PIPE VISES Chain Vises (pat.) have 1-piece drop forged jaws and 5 other improvements. Hinged Vises with drop forged steel hooks and jaws of tool steel milled, hardened and tempered.

Armstrong Bros. Tool Co.
"The Tool Holder People"
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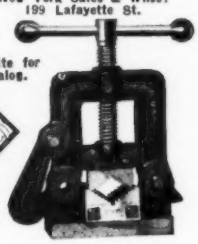
Write for Catalog.



Heavy Duty Vises
Open Side Vises
Pipe Vise Saddle that attaches anywhere.

Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pipe, Chain

American Pipe Tool Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Billings & Spencer Co., The, Hartford, Conn.
Erie Tool Works, The, Erie, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Nye Tool & Machine Works, The, Chicago.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Vises, Machinists'

(Continued from page 348)

Desmond-Stephan Mfg. Co., Urbana, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Erie Tool Works, The, Erie, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Millers Falls Co., Greenfield, Mass.
Morgan Vise Co., Chicago, Ill.
North Bros Mfg. Co., Philadelphia, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Patternmakers'

(See "Vises, Woodworkers'")

Vises, Pipe

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Billings & Spencer Co., The, Hartford, Conn.
Columbian Vise & Mfg. Co., The, Cleveland.
Crane Co., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.
Erie Tool Works, The, Erie, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hinman, D. A., & Co., Inc., Sandwich, Ill.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Nye Tool & Machine Works, The, Chicago.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Erie Pipe Vises

Made in heavy and medium weights. Also clamp base and chain type.

All Erie pipe vises, like other Erie tools, are absolutely guaranteed. Every one is carefully designed, and built to the most exacting standards. Here is a complete line, fitting perfectly into the distributor's set up. Send for our catalog and prices. You will be interested.

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PIPE VISES

—by "TOLEDO" hold all pipe perfectly. Hinge type up to 4½". Open Side type up to 4½". No latch to lift. Malleable frames. Heat treated hardened steel jaws. Good for years of service.

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TWO GREAT VISES by WILLIAMS

SUPERIOR DROP-FORGED TOOLS

"VULCAN SUPERIOR"

Featuring "overhead" adjustment for convenience—reversible jaws for wear. Wholly made of tough, wrought steel. 2 sizes for pipe, ⅛ to 4½".

GENUINE WILLIAMS' "VULCAN"

The Original Chain Pipe Vise. Drop-forged base, handle and jaws. Saw-tempered teeth for file sharpening. 4 sizes for pipe ⅛ to 8".

"The Wrench People"

J. H. WILLIAMS & CO., 75 Spring St., New York, N. Y.

Vises, Pipe, Combination

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Erie Tool Works, The, Erie, Pa.
Hennebohle, Frank, Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Morgan Vise Co., Chicago, Ill.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pipe, for Nickel and Brass Pipe

Armstrong Mfg. Co., Bridgeport, Conn.
Nye Tool & Machine Works, The, Chicago.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Warnock Manufacturing Co., Worcester, Mass.

Vises, Pipe, Tool Kit and Post

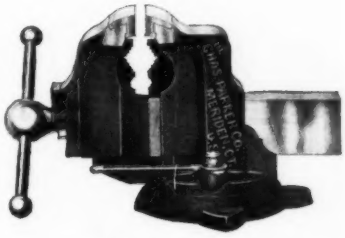
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Mfg. Co., Bridgeport, Conn.
Erie Tool Works, The, Erie, Pa.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Nye Tool & Machine Works, The, Chicago.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pneumatic

Hannifin Mfg. Co., Chicago, Ill.

PARKER "Combination Pipe" VISES

Pipe jaws from the highest grade steel, milled and tempered in oil. Carrying the seven important construction features same as the Parker Machinists Series.



SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	Holds Pipe Up to	List
87	47	3½	3	2	$17.50
88	74	4½	5	3	24.00
288½	116	5	6	4	35.00
289½	185	6	9½	6	49.00

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Meriden, Conn.

PARKER

1832 **VISES** 1937

SEVEN REASONS WHY

1. Renewable Tool Steel Jaws.
2. A Swivel with the strength of a solid back Jaw.
3. Solid Steel Bar Slide Strengthener.
4. Improved Saddle and solid underportion.
5. Handle that stays put.
6. Castings of Parkco Metal.
7. Extra strong nut and screw.

QUALITY PROVEN—105 YEARS OF SERVICE

"SUPERIOR" MACHINISTS STATIONARY BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
29X	33	3¼	4	$11.50
39X	52	3¾	6	13.00
49X	72	4¼	7	17.00
59X	90	4¾	8	22.00
69X	129	5½	9	33.00
79X	159	6¼	9½	45.00
79½X	194	7	10½	55.00
60X	297	8	13¾	95.00

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
229X	39	3¼	4	$15.00
239X	61	3¾	6	17.00
249X	85	4¼	7	21.00
259X	103	4¾	8	27.50
269X	151	5½	9	42.00
279X	187	6¼	9½	60.00
279½X	228	7	10½	70.00
260X	351	8	13¾	105.00

"TOP SWIVEL JAW" SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
270	33	3	3½	$17.50
271	51	3½	5	20.00
271½	52	4	5	24.00
272	71	4½	6	28.00
273	85	5	7	35.00
274	123	5½	9	44.00
275	174	6	9½	60.00
240	220	7	11	75.00

"DOUBLE SWIVEL" SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
429	53	3½	3½	$27.00
439	67	4	6	32.00
449	87	4½	7½	39.00

"ECLIPSE" MACHINISTS STATIONARY BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
101	15	2½	3½	$ 9.00
102	23	3	4½	10.00
103	35	3½	5½	11.25
104	46	4	6½	12.75
105	63	4½	7	15.50
106	85	5	8	20.00
106½	110	5½	9	30.00
107	132	6	10½	39.00
108	245	8	13¾	75.00

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
201	17	2½	3½	$12.00
202	26	3	4½	13.00
203	42	3½	5½	15.00
204	59	4	6½	17.00
205	76	4½	7	20.00
206	104	5	8	30.00
206½	130	5½	9	38.00
207	157	6	10½	52.00
208	298	8	13¾	98.00

HEAVY DUTY AND SERVICE STATION

Have extra weight and heavy anvil attached.

STATIONARY BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
134	76	4	5½	$17.50
135	102	5	6	24.00

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
234	89	4	5½	$21.50
235	112	5	6	32.00

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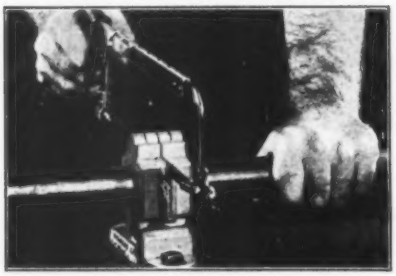
MERIDEN, CONNECTICUT

THEY GRIP LIKE A GRIZZLY

Trimo Saw Vise Set
FOR THIN WALL TUBING



Sizes tube while making perfect square end cut.
Takes ⅝" to 2" O.D. or I.D.

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Boston, Mass.

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The World's Largest Producer? Yes!
The Most Varied Line? Yes!!
The Largest Stocks on Hand? Yes!!!
The Most Complete Service? Yes!!!!

EVERY TYPE—EVERY MATERIAL FOR EVERY PURPOSE

Uninterrupted Service to the Mill Supply Jobbing Trade for Half A Century!

WROUGHT WASHER MFG. CO.
2205 South Bay St. Milwaukee, Wis., U. S. A.

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Vises, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Beaver Pipe Tools, Inc., Warren, Ohio.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Imperial Brass Mfg. Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Rock Island Mfg. Co., Rock Island, Ill.
Sargent & Co., New Haven, Conn.
Trimont Mfg. Co., Boston, Mass.

Vises, Solid Box

American Chain Co., Inc., Bridgeport, Conn.
Columbian Vise & Mfg. Co., The, Cleveland.

Vises, Swivel

(See "Vises, Bench" or "Vises, Machinists' ")

Vises, Toolmakers'

(See "Vises, Machinists' ")

Vises, Welders'

International Nutyp Tool Corp., Oswego, N. Y.

Vises, Woodworkers'

American Chain Co., Inc., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Erie Tool Works, The, Erie, Pa.
Greenlee Bros. & Co., Rockford, Ill.
Hollands Mfg. Co., Erie, Pa.
Millers Falls Co., Greenfield, Mass.
Morgan Vise Co., Chicago, Ill.
North Bros. Mfg. Co., Philadelphia, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.

PARKER "WOODWORKERS" VISES

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	Depth Face In.	List
246	77	4½	7	2¼	$22.50
‡276	53	4	7	2¼	25.00
STATIONARY BASE					
146	64	4½	7	2¼	$17.50

‡ No. 276 is Top Swivel Jaw Model

THE CHARLES PARKER CO.
Meriden, Conn.

Stanley Rule & Level Plant, New Britain, Conn.
Toles, W. C., Co., Woodstock, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Yost Manufacturing Co., Meadville, Pa.

Voltmeters

Bristol Co., The, Waterbury, Conn.
General Electric Co., Schenectady, N. Y.

Vulcanizers

Heintz, James C., & Co., Cleveland, Ohio.

Vulcanizers, Portable, for Rubber Belts

Goodrich, B. F., Co., The, Akron, Ohio.
Heintz, James C., & Co., Cleveland, Ohio.

Washers, Air

American Blower Corp., Detroit, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
National Fan & Blower Corp., Chicago, Ill.
Spray Engineering Co., Somerville, Mass.
Sturtevant, B. F., Co., Boston, Mass.

Washers—Aluminum, Brass, Copper, Lead, Tin and Zinc

Akron Metallic Gasket Co., Akron, Ohio.
Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Atlas Tack Corp., Fairhaven, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Clark Bros. Bolt Co., Millbdale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Consolidated Metals Corp., Detroit, Mich.
Economy Manufacturing Co., Philadelphia.
Garlock Packing Co., Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Harper, H. M., Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Humphrey, H. W., Unionville, Conn. (Aluminum, brass, copper and tin)
Massachusetts Machine Shop, Inc., Boston.
Master Products Co., The, Cleveland, Ohio.
Metallo Gasket Co., New Brunswick, N. J.
National Motor Bearing Co., Inc., Oakland, Calif. (Brass)
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Prier Brass Mfg. Co., Kansas City, Mo.
Quadriga Mfg. Co., The, Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Smith, Thomas, Co., Worcester, Mass.
United Screw & Bolt Corp., Cleveland, Ohio.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Asbestos

Advance Packing & Supply Co., Chicago, Ill.
Akron Metallic Gasket Co., Akron, Ohio.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Auburn Manufacturing Co., Hartford, Conn.
Carey, Philip, Co., The, Lockland, Ohio.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodrich, B. F., Co., The, Akron, Ohio.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Quadriga Mfg. Co., The, Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Washers, Automobile and Vehicle

Advance Packing & Supply Co., Chicago, Ill.
Armstrong Cork Products Co., Lancaster, Pa.
Asch & Co., Inc., New York, N. Y.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Champion Pneumatic Machinery Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
Deming Co., The, Salem, Ohio.
Felt Products Mfg. Co., Chicago, Ill.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Hobart Bros. Co., Troy, Ohio.
Hobbs Manufacturing Co., Worcester, Mass.
Imperial Brass Manufacturing Co., Chicago, Ill.

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Complete Stock of Washers
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Complete stock of all screw and bolt sizes in any non-ferrous metals. Also countersunk type brass finished washers, plain and nickel plated; Everdur lock washers, etc. Special sizes and types in any non-ferrous metal furnished promptly to order.

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Victor Mfg. & Gasket Co., Chicago
World's Largest Gasket Manufacturer

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Rhopac Products Corp., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Smith, Thomas, Co., Worcester, Mass.
Walworth Co., New York, N. Y.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee Wis.

Washers, Bibb

Auburn Manufacturing Co., Hartford Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Cook, H. N., Belting Co., San Francisco.
Crane Co., Chicago, Ill.
Detroit Stamping Co., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Holland Rubber Co., New York, N. Y.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
New England Screw Co., Boston, Mass.
Page Belting Co., Concord, N. H.
Prier Brass Mfg. Co., Kansas City, Mo.
Quadriga Mfg. Co., The, Chicago, Ill.
Republic Rubber Co., The, Youngstown, O
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Spaulding Fibre Co., Inc., Tonawanda N. Y.

Washers, Cast Iron

American Car and Foundry Co., New York N. Y.
Crane Co., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Nute, McGehee, Geary Co., Inc., The Chambersburg, Pa.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Swett, A. L., Iron Works, Medina, N. Y.
Wrought Washer Mfg. Co., Milwaukee.

Washers—Cork, Paper and Pasteboard

Advance Packing & Supply Co., Chicago, Ill.
Akron Metallic Gasket Co., Akron, Ohio.
Armstrong Cork Products Co., Lancaster Pa.
Auburn Manufacturing Co., Hartford Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Gross Rubber Co., Sharon, Pa.
Humphrey, H. W., Unionville, Conn.
Lunkenheimer Co., The, Cincinnati, Ohio
Quadriga Mfg. Co., The, Chicago, Ill.
Rockwood Mfg. Co., Indianapolis, Ind.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Felt and Fabric

Advance Packing & Supply Co., Chicago, Ill.
Akron Metallic Gasket Co., Akron, Ohio.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Auburn Manufacturing Co., Hartford, Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Gross Rubber Co., Sharon, Pa.
MacWatty Belting Co., Providence, R. I.
Quadriga Mfg. Co., The, Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Fibre

Akron Metallic Gasket Co., Akron, Ohio.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Auburn Manufacturing Co., Hartford, Conn.
Bastian-Blessing Co., Chicago, Ill.
Continental-Diamond Fibre Co., Newark, Del.
Darcoid Co., Inc., The, New York, N. Y.
Detroit Stamping Co., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Gross Rubber Co., Sharon, Pa.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Humphrey, H. W., Unionville, Conn.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Massachusetts Machine Shop, Inc., Boston.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Quadriga Mfg. Co., The, Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Galvanized

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Berry Brothers, Columbus, Ohio.
Clark Bros. Bolt Co., Milldale, Conn.
Columbus Bolt Works Co., The, Columbus, Ohio.
Crane Co., Chicago, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Humphrey, H. W., Unionville, Conn.
Littleford Bros., Cincinnati, Ohio.
Massachusetts Machine Shop, Inc., Boston, Mass.
Master Products Co., The, Cleveland, Ohio.
Metallo Gasket Co., New Brunswick, N. J.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Quadriga Mfg. Co., The, Chicago, Ill.

Special Washers in all Metals, Leather, Fibre, Asbestos and Graphite. Deep Drawings. Special Stampings.
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SMALL STAMPINGS
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Scott Valve Manufacturing Co., Detroit.
Sheffield Steel Corp., Kansas City, Mo.
U. S. Indestructible Gasket Co., Brooklyn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Washers and Gaskets, Gauge Glass

Bache, Semon, & Co., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Detroit Lubricator Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Durabla Manufacturing Co., New York.
Edna Brass Mfg. Co., The, Cincinnati, O.
Elkhart Rubber Works, Elkhart, Ind.
Essex Brass Corp., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Klingerit, Inc., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Minnesota Mining & Mfg. Co. St. Paul, Minn.
Morse Grate Bar Co., Inc., Providence, R. I.
New York Belting & Packing Co., Passaic, N. J.
Sargent Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.
Wright-Austin Co., Detroit, Mich.
Wrought Washer Mfg. Co., Milwaukee, Wis.

UMI

Washers, Hose

Advance Packing & Supply Co., Chicago, Ill.
Auburn Manufacturing Co., Hartford, Conn.
Chicago Rawhide Mfg. Co., The, Chicago.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., The, Akron, Ohio.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Elkhart Rubber Works, Elkhart, Ind.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Whitehead Bros. Rubber Co., Trenton, N. J.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Washers, Leather and Rawhide

Advance Packing & Supply Co., Chicago, Ill.
Auburn Manufacturing Co., Hartford, Conn.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Economy Manufacturing Co., Philadelphia.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hoffeld, R., & Co., Buffalo, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mabbs Hydraulic Packing Co., Chicago, Ill.
MacWatty Belting Co., Providence, R. I.
Mark, Clayton, & Co., Chicago, Ill.
Marsh, Chas. W., Co., Muskegon, Mich.
Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Stevens-Walden, Inc., Worcester, Mass.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.
Western Rawhide & Belting Co., Milwaukee, Wis.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Lock

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Beall Tool Division, Hubbard & Co., East Alton, Ill.
Butcher & Hart Mfg. Co., Toledo, Ohio.
Eaton Manufacturing Co., Reliance Spring Washer Division, Massillon, Ohio.
Harper, H. M., Co., Chicago, Ill.
Hobbs Manufacturing Co., Worcester, Mass.
National Lock Washer Co., Newark, N. J.
Philadelphia Steel & Wire Corp., Philadelphia, Pa.
Positive Lock Washer Co., The, Newark, N. J.
Rockford Screw Products Co., Rockford, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
United Screw & Bolt Corp., Cleveland, O.
Washburn Co., The, Worcester, Mass.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Malleable Iron

Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Illinois Malleable Iron Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.
Maris Brothers, Inc., Philadelphia, Pa.
Master Products Co., The, Cleveland.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Mine Car Axle

American Car and Foundry Co., New York.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Hobbs Manufacturing Co., Worcester, Mass.
Master Products Co., The, Cleveland, Ohio.
United Screw & Bolt Corp., Cleveland, O.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Nail Head

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
U. S. Indestructible Gasket Co., Brooklyn.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Oil Cup

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Chicago Rawhide Mfg. Co., The, Chicago.
Essex Brass Corp., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Chas. W., Co., Muskegon, Mich.
Schieren, Chas. A., Co., New York.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Washers, Paper and Pasteboard

(See "Washers—Cork, Paper and Pasteboard")

Washers, Pump

Auburn Manufacturing Co., Hartford, Conn.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Home Rubber Co., Trenton, N. J.
Michigan Leather Packing Co., Detroit.
Myers, F. E., & Bro. Co., The, Ashland, O.
Page Belting Co., Concord, N. H.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Stevens, Walden, Inc., Worcester, Mass.

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Washers, Rubber

Advance Packing & Supply Co., Chicago.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Rubber Works, Elkhart, Ind.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., The, Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hoffeld, R., & Co., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., Passaic, N. J.
Mulconroy Company, Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Philadelphia.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Washers, Steel, Flat

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Bay State Stamping Co., Worcester, Mass.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Detroit Stamping Co., Detroit, Mich.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Hobbs Manufacturing Co., Worcester, Mass.
Humphrey, H. W., Unionville, Conn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Massachusetts Machine Shop, Inc., Boston.
Master Products Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Quadriga Mfg. Co., The, Chicago, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Smith, Thomas, Co., Worcester, Mass.
Standard Shop Equipment Co., Philadelphia, Pa.
Stanley Works, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Toledo Pressed Steel Co., The, Toledo, Ohio.
United Screw & Bolt Corp., Cleveland, O.
U. S. Indestructible Gasket Co., Brooklyn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Spring

American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Beall Tool Division, Hubbard & Co., East Alton, Ill.
Butcher & Hart Mfg. Co., Toledo, Ohio.
Eaton Manufacturing Co. (Reliance Spring Washer Division) Massillon, Ohio.
Hobbs Manufacturing Co., Worcester, Mass.
Master Products Co., The, Cleveland, Ohio.
National Lock Washer Co., The, Newark, N. J.
Philadelphia Steel & Wire Co., Germantown, Philadelphia, Pa.
Positive Lock Washer Co., The, Newark, N. J.
Washburn Co., The, Worcester, Mass.

Washers, Street

Field, R. B., & Co., Worcester, Mass.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.

Washers, Valve, Hydrant

Auburn Manufacturing Co., Hartford, Conn.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Couse & Bolten, Inc., Newark, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Kupferle, John C., Foundry Co., St. Louis.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Master Products Co., The, Cleveland, Ohio.
Page Belting Co., Concord, N. H.
Schieren, Chas. A., Co., New York, N. Y.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Washers, Wrought Iron

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Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hobbs Manufacturing Co., Worcester, Mass.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Massachusetts Machine Shop, Inc., Boston.
Master Products Co., The, Cleveland.
Milton Manufacturing Co., The, Milton, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
United Screw & Bolt Corp., Cleveland, Ohio.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Waste, Cotton and Wool

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Buffalo Batt & Felt Corp., Depew, N. Y.
Colorado Sanitary Wiping Cloth Co., Denver, Colo.
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Corr, Patrick, & Sons, Inc., Philadelphia.
General Fibre Co., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Lillie, Dexter P., Co., New Bedford, Mass.
Massasoit Mfg. Co., Fall River, Mass.
Mont, R. A., & Co., Inc., Plainville, Conn.
Rauschenberger, John, Co., Milwaukee, Wis.
Riverside Mills, Inc., Augusta, Ga.
Springfield Waste Co., Springfield, Mass.
Star Sanitary Rag Co., Chicago, Ill.
Sweetland Waste Co., Inc., Canton, Mass. (Cotton)
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Wisconsin Waste & Wiper Co., Milwaukee.

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(See "Columns, Water")

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(See "Treatment, Water, for Boilers")

Wattmeters, Recording

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General Electric Co., Schenectady, N. Y.

Wax, Belt

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Burrell Belting Co., Chicago, Ill.
Himmelein & Bailey, Inc., Camden, N. J.
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Ways, Balancing

(See "Machines or Ways, Balancing")

Webbing, Cotton

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Burrell Belting Co., Chicago, Ill.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
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Standard Belt Fastener Co., The, Unionville, Conn.

Wedges, Coal

Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.

Wedges, Foundry

Sterling Wheelbarrow Co., Milwaukee, Wis.

Wedges, Frost

Klein-Logan Co., The, Pittsburgh, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

Wedges, Iron and Steel

Evansville Tool Works, Inc., Evansville, Ind.
Klein-Logan Co., The, Pittsburgh, Pa.
Market Forge Co., Everett, Mass.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Standard Shop Equipment Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

Wedges, Saw

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Klein-Logan Co., The, Pittsburgh, Pa.
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Wedges, Tool Post

(See "Rings and Wedges, Tool Post")

Wedges, Wooden

Menasha Wood Split Pulley Co., Menasha, Wis.
Rowe, Henry, Mfg. Co., Newago, Mich.

Weighers, Water

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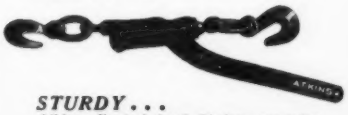

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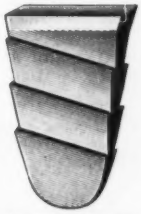

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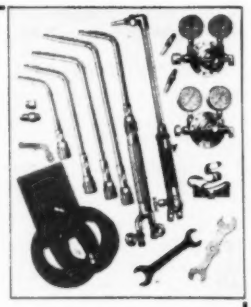

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Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
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Osborn Manufacturing Co., Cleveland, O.
Page Belting Co., Concord, N. H.
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Bethlehem Steel Co., Bethlehem, Pa.
Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Electric Wheel Co., Quincy, Ill.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Wheels, Fly

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Diamond Iron Works, Inc., Minneapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Illinois Gear & Machine Co., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
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Murray Iron Works Co., Burlington, Iowa.
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Millers Falls Co., Greenfield, Mass.

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Abrasive Co (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
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Dumore Co., The, Racine, Wis.
Goodrich Grinding Wheel Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Macklin Co., Jackson, Mich.
Mall Tool Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mid-West Abrasive Co., Detroit, Mich.
Norton Co., Worcester, Mass.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Peninsular Grinding Wheel Co., Detroit.
Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.
Safety Grinding Wheel & Machine Co., The Springfield, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Sterling Grinding Wheel Co., The, Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
Vitrified Wheel Co., Westfield, N. J.
Waltham Grinding Wheel Co., Waltham, Mass.
Wappat, Inc., Pittsburgh, Pa.
Whitney Chain & Mfg. Co., The, Hartford, Conn.

Wheels, Grinding, Mounted

Carborundum Co., Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dumore Co., The, Racine, Wis.
Macklin Co., Jackson, Mich.
Norton Co., Worcester, Mass.

Wheels, Paper

(See "Pulleys and Wheels, Paper")

Wheels, Pipe Cutter

Armstrong Manufacturing Co., Bridgeport, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
Ridge Tool Co., The, Elyria, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Wheels, Polishing

(See "Wheels, Buffing and Polishing")

Wheels, Rope

(See "Sheaves, Rope, Power Transmission")

Wheels, Sprocket

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio. (Bronze)
Baldwin-Duckworth Chain Corp., Springfield, Mass.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diamond Chain and Mfg. Co., Indianapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., Cleveland, Ohio.
Jenkins Bros., New York, N. Y.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Mey Chain Belt Co., Buffalo, N. Y.
Moline Malleable Iron Co., St. Charles, Ill.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co., New York.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
Smith Power Transmission Co., Cleveland.
Smith, Winfield H., Inc., Springfield, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Chain & Mfg. Co., The, Hartford.

Wheels, Trolley

American MonoRail Co., Cleveland, Ohio.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Conco Engineering Works, Mendota, Ill.
Harrington Co., The, Philadelphia, Pa.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Link-Belt Co., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Moccasin Bushing Co., Chattanooga, Tenn.
National Lead Co., New York, N. Y.
Nice Ball Bearing Co., Philadelphia, Pa.
Osborn Manufacturing Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Wheels, Truck

All Steel Welded Truck Corp., Rockford, Ill.
American Car and Foundry Co., New York.
American Pulley Co., The, Philadelphia.
Armstrong Truck Co., North Wales, Pa.
Bassick Co., The, Bridgeport, Conn.
Bond Foundry and Machine Co., Manheim, Pa.
Colson Corp., The, Elyria, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Darnell Corporation, Long Beach, Calif.
Divine Brothers Co., Utica, N. Y.
Electric Wheel Co., Quincy, Ill.
Empire Manufacturing Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Lyon Iron Works, Greene, N. Y.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Metzgar Co., The, Grand Rapids, Mich.
Nice Ball Bearing Co., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Payson Mfg. Co., The, Chicago, Ill.
Pyott Foundry & Machine Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Spaulding Fibre Co., Inc., Tonawanda, N. Y. (Fibre)
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio
Vulcan Wheels, Inc., Newark, N. J.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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THE SILVERED WHEEL WITH THE RED HUB

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Wheels, Valve, Bakelite

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Wheels, Valve, Fibre

Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.

Wheels, Valve, Metal

Bastian-Blessing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Wheels, Valve Operating, Sprocket

Babbitt Steam Specialty Co., New Bedford, Mass.
Fairbanks Co., The, New York, N. Y.
Foote Gear Works, Inc., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N.Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Newbury Manufacturing Co., Monroe, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.

Wheels, Valve, Wire

Jenkins Bros., New York, N. Y.

Wheels, Valve, Wood

Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.

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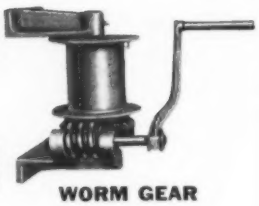

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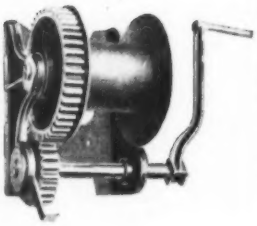

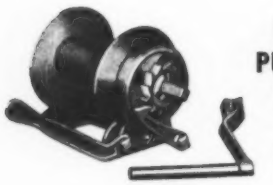

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Gallup-Ruffing Handle Co., The, Norwalk, Ohio.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Market Forge Co., Everett, Mass.
Williams, D. T., Valve Co., The, Cincinnati.

Wheels, Water

Allis-Chalmers Manufacturing Co., West Allis, Wis.
DeLaval Steam Turbine Co., Trenton, N. J.
Fitz Water Wheel Co., Hanover, Pa.
Leffel, James, & Co., The, Springfield, Ohio.

Whistles, Steam and Air

Crane Co., Chicago, Ill.
Federal Electric Co., Inc., Chicago, Ill. (Electric air and compressed air)
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.

Whitewashing Machines and Equipment

(See "Machines and Equipment, Painting and Whitewashing")

Wicking, Asbestos

(See "Tape and Wicking, Asbestos" and "Packing, Asbestos, Wick")

Wicking, Cotton

Advance Packing & Supply Co., Chicago.
Buffalo Batt & Belt Corp., Depew, N. Y.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Massasoit Mfg. Co., Fall River, Mass.
Standard Oil Co. of New York, The, New York, N. Y.
Toledo Pressed Steel Co., The, Toledo, O.
Walters Manufacturing Co., Oakmont, Pa.
Western Packing & Supply Co., Chicago.

Wicking, Felt

Advance Packing & Supply Co., Chicago.
Booth Felt Co., Inc., Brooklyn, N. Y.

Wicks—Mine Lamp, Lantern and Torch

Walters Manufacturing Co., Oakmont, Pa.
Western Packing & Supply Co., Chicago.

Winches and Windlasses

American Engineering Co., Philadelphia, Pa.
Bartlett, C. O., and Snow Co., The, Cleveland, Ohio.
Beebe Bros., Seattle, Wash.
Chain Belt Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus-McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Euclid-Armington Corp., Euclid, Ohio.
Fridy Hoist & Machinery Co., Mountville, Pa.
Harrington Co., The, Philadelphia, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Palmer-Bee Co., Detroit, Mich.
Ramsey Machinery Co., Portland, Ore.
Round, David, and Son, Cleveland, Ohio.
Schultz, A. L., & Son, Chicago, Ill.
Shepard Miles Crane and Hoist Corp., Montour Falls, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N.Y.

Winders, Spring

Porter Manufacturing Co. (Division of Advance Car Mover Co.), Appleton, Wis.

Wipers, Machine

(See "Cloths, Wiping, Machine")

Wire—Annealed, Galvanized and Market

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.

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Jones & Laughlin Steel Corp., Pittsburgh.
Northwestern Barb Wire Co., Sterling, Ill.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Republic Steel Corp., Cleveland, Ohio.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Wire, Barbed

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Jones & Laughlin Steel Corp., Pittsburgh.
Northwestern Barb Wire Co., Sterling, Ill.
Page Steel & Wire Co., and Wire Division of American Chain Co., Inc., Monessen, Pa.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Wire, Blasting, Connecting and Leading

American Steel & Wire Co., Chicago, Ill.

Wire—Brass, Copper, Nickel, Phosphor Bronze and Silver

American Steel & Wire Co., Chicago, Ill.
Anaconda Wire & Cable Co., New York.
Bristol Brass Corp., The, Bristol, Conn.
Buffalo Wire Works Co., Inc., Buffalo.
Chase Brass & Copper Co., Waterbury, Conn.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Roebling's, John A., Sons Co., Trenton, N. J.
Scovill Mfg. Co., Waterbury, Conn.
Weldit Acetylene Co., Detroit, Mich.

Wire, Broom, Tinned

American Steel & Wire Co., Chicago, Ill.
Osborn Manufacturing Co., The, Cleveland.
Rinn, Albert E., Co., Allentown, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Wire Cloth

(See "Cloth, Wire")

Wire, Fence, Barbed and Smooth

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.

Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Smooth only)
Northwestern Barb Wire Co., Sterling, Ill.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York, N. Y.

Wire, Fuse

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
American Steel & Wire Co., Chicago, Ill.
Bussmann Mfg. Co., St. Louis, Mo.
Roebling's, John A., Sons Co., Trenton, N. J.

Wire, Insulated

American Steel & Wire Co., Chicago, Ill.
Anaconda Wire & Cable Co., New York.
Euclid Rubber Co., Cleveland, Ohio.
General Electric Co., Schenectady, N. Y.
Roebling's, John A., Sons Co., Trenton, N. J.
Royal Electric Co., Inc., Avon, Mass.
Simplex Wire & Cable Co., Boston, Mass.
Southern Friction Materials Co., Charlotte, N. C.

Wire, Lead

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
American Steel & Wire Co., Chicago, Ill.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bussmann Mfg. Co., St. Louis Mo.
Consolidated Metals Corp., Detroit, Mich.
Federated Metals Corp., New York. N. Y.
Gardiner Metal Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hercules Powder Co., Inc., Wilmington, Del.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Rochester Lead Works, Rochester, N. Y.
Simplex Wire & Cable Co., Boston, Mass.

Wire, Music

American Steel & Wire Co , Chicago, Ill.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Frasse, Peter A., & Co., Inc., New York.
Roebling's, John A., Sons Co., Trenton, N. J.
Wickwire Spencer Steel Co., New York.

Wire Rope

(See "Rope, Wire")

Wire, Solder

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Canfield, M. C., Sons Co., Newark, N. J.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hewitt Metals Corp., Detroit, Mich.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
Rochester Lead Works, Rochester, N. Y.

Wire, Spooled and Coiled

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Anaconda Wire & Cable Co., New York.
Chase Brass & Copper Co., Waterbury, Conn.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Crucible Steel Co. of America, New York, N. Y.
General Electric Co., Schenectady, N. Y.
National Lead Co., New York, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Wickwire Spencer Steel Co., New York.

Wire, Straightened and Cut

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Berry Brothers, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Bliss & Laughlin, Inc., Harvey, Ill.
Chase Brass & Copper Co., Waterbury, Conn.
Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
Crucible Steel Co. of America, New York, N. Y.
Eaton Manufacturing Co. (Reliance Spring Washer Division), Massillon, Ohio.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Sight Feed Generator Co., Richmond, Ind.
Wickwire Bros., Cortland, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Wire, Threaded

American Steel & Wire Co., Chicago, Ill.
Berry Brothers, Columbus, Ohio.
Pheoll Mfg. Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
United Screw & Bolt Corp., Cleveland, O.
Washburn Co., The, Worcester, Mass.

Wire and Rods, Welding

(See "Rods, Welding")

Woodworkers, Universal

Boice-Crane Co., Toledo, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Greenlee Bros. & Co., Rockford, Ill.
Leach Co., Oshkosh, Wis.
Master Woodworker Mfg. Co., Detroit.
Northfield Foundry & Machine Co., Northfield, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Woodworking Machinery

(See "Machines, Woodworking," and Specific Items)

Wool, Glass

Corning Glass Works, Corning, N. Y.
Friedrich & Dimmock, New York, N. Y.
Owens-Illinois Glass Co., Toledo, Ohio.

Wool, Lead

Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Rinn, Albert E., Co., Allentown, Pa.
Rochester Lead Works, Rochester, N. Y.

Wool, Mineral

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Eagle-Picher Lead Co., The, Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Owens-Illinois Glass Co., Toledo, Ohio.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn. (Also rock wool)
U. S. Mineral Wool Co., New York, N. Y.

Wool, Steel

American Steel Wool Mfg. Co., Inc., Long Island City, N. Y.
Rinn, Albert E., Co., Allentown, Pa.

Workshops, Home (Woodworking)

Delta Mfg. Co., Milwaukee, Wis.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.

Wrenches, Adjustable

Barcalo Mfg. Co., Buffalo, N. Y.
Bemis & Call Co., Springfield, Mass.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Heller Brothers Co., Newark, N. J.
International Nutyp Tool Corp., Oswego, N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Oliver-Barth Jack Co., Milwaukee, Wis.
Peck, Stow & Wilcox Co., Southington, Conn.

(Continued on page 360)

A COMPLETE LINE OF QUALITY WRENCHES

ALL TYPES—ALL SIZES

COES GENUINE SCREW WRENCH "Knife Handle" No. 92

COES STEEL HANDLE WRENCH No. 91

IMPROVED ADJUSTABLE "S" NUT WRENCH No. 48

COMBINATION PIPE AND NUT WRENCH No. 45. Bright

STEEL HANDLE NUT WRENCH No. 70

TRADE B&C MARK

MONKEY WRENCH Wood Handle No. 62

Bemis & Call Company

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ESTABLISHED 1835

NEW

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STRONGEST WRENCHES OF THEIR TYPE MADE TODAY

Williams' Adjustable (Carbon-Steel) Wrenches embody square shoulders on jaw shank to eliminate wedging and spreading—provide positive bearing against working stress—permit thicker, stronger "web" without increasing head thickness.

Also, Williams' "Superjustable" (Chrome-Alloy) Wrenches; thin—light—strong.

Both lines in 4, 6, 8, 10, 12" sizes. Ask for literature.

J. H. WILLIAMS & CO.

"The Wrench People"

75 Spring St. NEW YORK, N. Y

WILLIAMS
SUPERIOR DROP-FORGED TOOLS
ADJUSTABLE WRENCHES

Wrenches, Adjustable

(Continued from page 359)

Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Adjustable "S"

Barcalo Mfg. Co., Buffalo, N. Y.
Bemis & Call Co., Springfield, Mass.
Billings & Spencer Co., The, Hartford, Conn.
Erie Tool Works, The, Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Stevens, Walden, Inc., Worcester, Mass.

NEW TRIMO TOOL!
THE PERFECT HANDLE MONKEY WRENCH

Drop forged bar and jaw for extra strength and service — a finely made steel monkey wrench of proved design now made by the makers of famous Trimo Tools.

"Perfect Handle" wrenches in sizes 6"-21" with all metal or knife handle.

Product of

TRIMONT MFG. CO., INC.
Roxbury (Boston), Mass.

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Armstrong Bros. Tool Co., Chicago, Ill.
Roebling's, John A., Sons Co., Trenton, N. J.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Automobile

Armstrong Bros. Tool Co., Chicago, Ill.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Evansville Tool Works, Inc., Evansville, Ind.
Harris & Reed Mfg. Co., Chicago, Ill.
Heller Brothers Co., Newark, N. J.
Hinsdale Manufacturing Co., Chicago, Ill.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Plomb Tool Co., Los Angeles, Calif.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Ruleta Co., Inc., The, New York, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Bicycle

Barcalo Mfg. Co., Buffalo, N .Y.
Billings & Spencer Co., The, Hartford, Conn.
Crescent Tool Co., Jamestown, N. Y.
Harris & Reed Mfg. Co., Chicago, Ill.
Heller Bros. Co., Newark, N. J.
Hinsdale Manufacturing Co., Chicago, Ill.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Box

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Hinsdale Mfg. Co., Chicago, Ill.
International Chain & Mfg. Co., York, Pa.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Brace

American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Manufacturing Co., Milwaukee, Wis.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Cap Screw

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Evansville Tool Works, Inc., Evansville, Ind.
Parker-Kalon Corp., New York, N. Y.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Car

Advance Car Mover Co., Inc., Appleton, Wis.
Appleton-Atlas Car Mover Corp., Milwaukee, Wis.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Loane Engineering Co., Baltimore, Md.
Lowell Wrench Co., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Car Dumping

Advance Car Mover Co., Inc., Appleton, Wis.
Appleton-Atlas Car Mover Corp., Milwaukee, Wis.

SWACO

Safety
Hopper CAR Wrench

LIST PRICE
$20.00

The SWACO Hopper Car Wrench assures safety and speed in opening drop bottom cars. The two-way pawl mechanism and the ball bearing reversible ratchet head (exclusive SWACO features) give positive action under all working conditions. All parts are of steel testing 70,000 to 80,000 lbs. tensile strength.

Safety Wrench & Appliance Co.
56 Commercial St.
Worcester, - Mass.

Also see our Car Mover advertisement near "Car Mover" listings.

Rowell Mfg. Co., Appleton, Wis. (Combination car and paper wrenches)
Safety Wrench & Appliance Co., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Chuck

Billings & Spencer Co., The, Hartford.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Cock—Steam and Gas

Detroit Brass & Malleable Works, Detroit.
Stevens, Walden, Inc., Worcester, Mass.
Walworth Co., New York, N. Y.

Wrenches, Combination Pipe and Nut

Bemis & Call Co., Springfield, Mass.
Bonney Forge & Tool Works, Allentown, Pa.
Erie Tool Works, The, Erie, Pa.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Flange

Heller Brothers Co., Newark, N. J.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Hydrant

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis
Clow, James B., & Sons, Chicago, Ill.
Drew, C., & Co. Kingston Mass.
Heller Bros. Co., Newark, N. J.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Lag Screw

Armstrong Bros. Tool Co., Chicago, Ill.
Blackhawk Mfg. Co., Milwaukee, Wis.
Crescent Tool Co., Jamestown, N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Klein, M., & Sons, Chicago, Ill.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Lathe Dog

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Linemen's

Billings & Spencer Co., The, Hartford.
Crescent Tool Co., Jamestown, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Klein, M., & Son, Chicago, Ill.
Lowell Wrench Co., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Monkey

(See "Wrenches, Adjustable")

ARMSTRONG

Drop Forged WRENCHES

Highest quality. Wrenches to meet every need. All standard millings. Special carbon steel, or, longer, lighter, thinner, stronger Chrome-Vanadium Steel. Singly, on boards or in sets. See Wrenches: Socket.

50 Types
All Sizes
1 Quality

ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
332 N. Francisco Ave., CHICAGO
New York Sales & Whse.: 199 Lafayette St.
Write for Catalog

Wrenches, Oil Well

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Heller Brothers Co., Newark, N. J.
Hinsdale Manufacturing Co., Chicago, Ill.
Lowell Wrench Co., Worcester, Mass.
Ridge Tool Co., The, Elyria, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y

Wrenches, Open End

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros Tool Co., Chicago, Ill.
Billings & Spencer Co., Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Evansville Tool Works, Evansville, Ind.
Harris & Reed Mfg. Co., Chicago, Ill.
Hinsdale Manufacturing Co., Chicago, Ill.
International Chain & Mfg. Co., York, Pa.
Keystone Mfg. Co., Buffalo, N. Y.
Klein, M., & Son, Chicago, Ill.
Kraeuter & Co., Inc., Newark, N. J.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Pipe

Armstrong Bros. Tool Co., Chicago, Ill.
Belden Machine Co., New Haven, Conn.
Billings & Spencer Co., Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Crescent Tool Co., Jamestown, N. Y.
Erie Tool Works, The, Erie, Pa.
Greene, Tweed & Co., New York, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.

(Continued on page 362)

THEY ARE SUPERIOR WRENCHES

• Williams' Carbon Steel Wrenches are finished regularly with black, baked-on enamel, heads bright. Unfinished, same wrench except without enamel and bright heads. 50 patterns—over 1,000 sizes.

Also Williams' "NON-SPARKING" Safety Wrenches, drop-forged from Beryllium-Copper and hardened . . . "SUPERRENCHES" (Chrome-Molybdenum) . . . Detachable "SUPER-SOCKET" Wrenches in 5 different Patterns.

J. H. WILLIAMS & CO.
"The Wrench People"
75 Spring St. NEW YORK, N.Y.

WILLIAMS
SUPERIOR DROP-FORGED TOOLS
WRENCHES
MOST COMPLETE LINE IN U. S. A.

"TRIMO-ALLOY"

A NEW PIPE WRENCH MADE ENTIRELY OF DROP FORGED, HEAT TREATED ALLOY STEEL

TRIMO

The enormous increase in strength now accomplished by making this pipe wrench from chrome, molybdenum and nickel steel alloys gives a safety factor never before obtained in a pipe wrench.

Accident hazard is lowered, working life is prolonged, and dependable, non-locking, non-slipping operation is assured by the new, improved "Trimo-Alloy" pipe wrench.

The new tool is identified by the symbol CR-MOL stamped on the hook jaw, "Trimo-Alloy", etched on the frame, and the red Trimo tag wired to the handle. All parts are replaceable, including the long-wearing, sure-grip insert jaw.

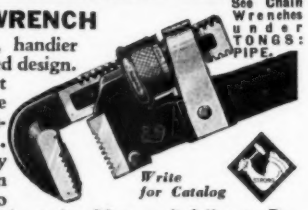
The mill supply distributor carries complete stock of Trimo wrenches and replacements parts.

TRIMONT MFG. CO., INC.
ROXBURY (BOSTON), MASS.

Leading producers of quality pipe wrenches for 50 years

ARMSTRONG BROS.

PIPE WRENCH



Stronger, handier —patented design. No cast frame (nut housing). Heavy forged-in lugs to take up side strain. Nuts can't fall out. Replaceable Tool Steel Jaws.

All Steel Pipe Wrench 10 patented features

ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
332 N. Francisco Ave. Chicago, U.S.A.
New York Sales & Wnse: 199 Lafayette St.

Wrenches, Pipe

(Continued from page 361)

Heller Brothers Co., Newark, N. J.
Henry & Allen, Inc., Auburn, N. Y.
International Nutyp Tool Corp., Oswego, N. Y.
Maydole, David, Tool Corporation, Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Quadriga Mfg. Co., The, Chicago, Ill.
Ridge Tool Co., The, Elyria, Ohio.
Rowell Mfg. Co., Appleton, Wis. (Combination car and pipe wrenches)
Sandvik Saw & Tool Corp., New York, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Threadwell Tap & Die Co., Greenfield, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
U. S. Hame Co., Buffalo, N. Y.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Pipe, Brass and Nickel

Belden Machine Co., The, New Haven, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Erie Tool Works, The, Erie, Pa.
Reed Manufacturing Co., Erie, Pa.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Warnock Manufacturing Co., Worcester, Mass.

Wrenches, Pipe, Chain

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Crane Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Heller Brothers Co., Newark, N. J.
Ridge Tool Co., The, Elyria, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

ERIE PIPE WRENCHES

TESTED AND GUARANTEED

THE ERIE TOOL WORKS — ERIE, PA.

RIDGID WRENCHES

All Heavy - Duty

RIDGID Straight Wrenches Sizes 6" to 60". End Wrenches. Sizes 6" to 36".

LIST PRICES

Size	
6 & E6	$1.90
8 & E8	2.20
10 & E10	2.85
14 & E14	3.85
18 & E18	5.50
24 & E24	8.50
36 & E36	15.00
48	25.00
60	40.00

E—End Pattern Wrench

Rubber Grips — 10", $3.60 doz.; 14", $4.80 doz.

New Heavy-Duty wrench with guaranteed housing — saves fully 75% of wrench repairs. Strong alloy handle. Hook and replaceable heel jaw of chrome molybdenum nickel steel. Hook jaw full-floating, with handy pipe scale. Jaws slip-and-lock proof. Adjusting nut turns easily in open housing.

RIDGID Compound Leverage Wrenches

S-2, capacity to 2"
S-4, capacity to 4½"
S-6, capacity to 6"
S-8, capacity to 8"

List Prices — S-2, $8.50; S-4, $17.00; S-6, $22.00; S-8, $33.00.

Compound leverage, 10 times that of 48" wrench. For heavy-duty and crowded conditions. Action of wrench and trunnion does not disturb joints already tightened. Tightens 8" pipe or loosens old rusted joints that 3 to 4 men can't move with ordinary wrenches. Pays for itself on one job.

•

Prices quoted above subject to usual trade discounts.

THE RIDGE TOOL CO.
ELYRIA, OHIO, U. S. A.

Our facilities are open to you in case you don't find the information you are after in this

Directory Edition of

MILL SUPPLIES

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Just drop us a line and we will make every effort to secure for you the data you require

•

MILL SUPPLIES

"The Magazine for DISTRIBUTORS and Their SALESMEN"

WILLIAMS
SUPERIOR DROP-FORGED TOOLS

"SUPERECTOR"

HEAVY DUTY

A NEW REVERSIBLE RATCHET WRENCH

Rugged, rapid! Quadruple Pawls, instead of the usual 2, for double bearing and strength. Williams' "Superector" is built for fast operation and severe service. Drop-forged handle utilizes the extra strength afforded by the pawls. 5 sizes—24 to 53". Both Hex and Square Sockets with hole extending clear thru. Openings 1-1/16 to 4⅝" operate nuts on any length of bolt. Fully guaranteed. Ask for literature.

J. H. WILLIAMS & CO.
"The Wrench People"
75 Spring St. New York, N. Y.

WILLIAMS
SUPERIOR DROP-FORGED TOOLS

Wrenches, Railway Track

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Klein-Logan Co., The, Pittsburgh, Pa.
Lowell Wrench Co., Worcester, Mass.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Ratchet

Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Greene, Tweed & Co., New York, N. Y.
Heller Brothers Co., Newark, N. J.
Hinsdale Manufacturing Co., Chicago, Ill.
Keystone Mfg. Co., Buffalo, N. Y.

(Continued on page 364)

FAVORITE REVERSIBLE RATCHET WRENCH

FOR THE QUICK TURNING OF NUTS

Ratchet movement eliminates all lost motion. Does not leave the nut until operation is completed.

A TIME SAVER

Can be used in narrower places than an ordinary wrench.

Each head can turn two different-sized nuts—one in each end.

Opening in head allows bolt to pass clear through.

Reverse motion instantaneous by turning Pawl.

Head cannot slip off nut.

GREENE, TWEED & CO.
Sole Manufacturers
109 Duane Street New York

LOWELL

REVERSIBLE RATCHET WRENCHES

1916 Pattern

No.	Length of Handle, In.	Size of Opening, Inches: Square	Size of Opening, Inches: Hexagon	List Prices: With One Gear Each	List Prices: Extra Gears Each
0	7	¼, 5/16, ½	½, 11/16	$5.00	$1.00
1	10	5/16, ½, 9/16	3/8, 9/16, 11/16	6.00	1.00
2	12	½, 9/16, 11/16, ¾	9/16, 11/16, 7/8, 11/16	7.00	1.25
3	15	9/16, ¾, 13/16, 7/8, 11/16	11/16, 1 1/16, 1 1/8, 1 1/4	9.00	1.50
3½	18	1, 1 1/16, 1 1/8		10.00	1.50
4	18	1, 1 1/16, 1 1/4, 1 3/8, 1 7/8	1 1/16, 1 1/4, 1 3/8, 1 5/8	12.00	2.00
4½	24	1 1/8	1 3/8	14.00	2.00

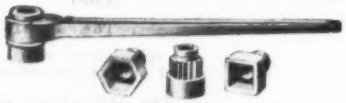
CONVENIENCE—They will turn nuts on or off without removing the Wrench, and soon make good their cost by saving labor.

GUARANTEE—We stand back of these tools in every way and warrant them in all respects to give satisfaction.

Red Face Bridge Builders' Wrenches

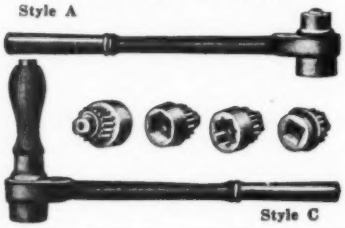
No.	Length of Handle, feet	Apprx. Wt. pounds	Size of Opening, Inches: Square	Size of Opening, Inches: Hexagon	List Prices: With One Gear Each	List Prices: Extra Gear Each
1	3	11	1, 1 1/16, 1 1/4, 1 5/16, 1 3/8	1 1/8, 1 1/4, 1 3/8, 1 5/8	$14.00	$2.00
2	3	14	1 1/4, 1 1/8, 1 3/8, 1 3/8, 2	1 3/8, 2, 2 1/8, 2 1/2	16.00	4.00
3	3	23	2, 2 1/4, 2 1/8, 2 1/2	2 1/8, 2 3/8, 2 3/4, 2 5/8, 3 1/8	24.00	6.00
4	3½	32	2 1/2, 2 3/4, 3, 3 1/4	3 1/2, 3 3/8	30.00	8.00
5	3½	40	3 1/4, 3 1/2, 3 3/4	4 1/4, 4 1/2	35.00	10.00

Red Socket Steel Socket Bridge Wrenches



No	Length of Handle, feet	Apprx Weight pounds	For Nuts Short Diameter Square or Hexagon	List Prices: With One Socket Each	List Prices: Extra Socket Each
1	2	10	1, 1 1/16, 1 1/8, 1 1/4, 1 3/8, 1 7/8, 1 5/8	$10.00	$3.00
1½	3	42	1 1/8, 1 3/8, 1 5/8, 1 7/8, 2, 2 1/8, 2 1/2	14.00	3.00
2	3	23	1 3/8, 1 5/8, 1 3/4, 1 7/8, 2, 2 1/8, 2 1/2	20.00	6.00
2½	4	26	2 1/8, 2 3/8, 2 5/8, 2 3/4, 2 7/8, 3, 3 1/8	21.00	6.00
3	3	50	2 3/4, 2 7/8, 3 1/8, 3 1/4, 3 3/8, 4 1/8	40.00	12.00
3½	4	54	4 1/4, 4 1/2, 4 3/4, 5	45.00	12.00

Red Socket Wrenches



No.	Length Handle Inches	For Nuts Short Diameter: Square	For Nuts Short Diameter: Hexagon	List Prices: With One Socket Each	List Prices: Extra Socket Each
1	12	½ taper, ½, 9/16, 11/16, 3/4, 13/16, 7/8, 11/16, 1 1/8, 1 1/8, 1 1/4	9/16, 11/16, 7/8, 11/16, 1 1/8, 1 1/4	Style A $4.00 Style C 5.00	$1.00
2	16	1, 1 1/8, 1 3/8, 1 1/4, 1 1/8	1 1/8, 1 1/4, 1 3/8, 1 5/8	6.00	2.00
	20	1, 1 1/8, 1 1/4, 1 1/8, 1 5/8, 1 3/8	1, 1 1/8, 1 1/4, 1 1/8, 1 5/8, 1 3/8	10.00	3.00

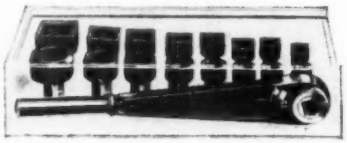
Nos. 2 and 3A

Nos. 2 and 3A

No. 2, Style A has a 1 1/16 inch hole for bolt to pass through socket.

No. 3, Style A has a 1⅛ inch hole.

Red Socket Multiplex Wrenches



No. 1—with List Prices

No. 1 Wrench has a 12-inch Handle and will take square or hexagon nuts. ¼, 5/16, 3/8, 7/16, ½, 9/16, 5/8, ¾-inch Bolt Diameters. ½, 11/16, 13/16, 15/16, ⅞, 11/16, 1 1/16, 1¼-inch Smaller Outside Diameters.

Price on Wrench Complete with sixteen Sockets	$10.00
Price on Wrench only	6.00
Price on Extra Sockets, each	.50

No. 2—with List Prices

No. 2 Wrench has a 20-inch Handle and will take square or hexagon nuts. ¾, ⅞, 1, 1⅛, 1¼-inch Bolt Diameters. 1¼, 1 7/16, 1⅝, 1 11/16, 2-inch Smaller Outside Diameters.

Price on Wrench Complete with ten Sockets	$18.00
Price on Wrench only	10.00
Price on Extra Sockets, each	1.00

LOWELL WRENCH CO.

Worcester, Mass.

California Representative, F. SOMERS PETERSON CO., 57 California St., San Francisco, Calif.

Wrenches, Ratchet

(Continued from page 363)

Lowell Wrench Co., Worcester, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Hoe, R., & Co., Inc., Bronx, New York.
Ohlen-Bishop Co., The, Columbus, Ohio.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Set Screw

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Hartford Machine Screw Co., Hartford, Conn.
Holo-Krome Screw Corp., The, Hartford, Conn.
Rockford Screw Products Co., Rockford, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Socket

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Channon, J. H., Corp., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Hinsdale Manufacturing Co., Chicago, Ill.
Keystone Mfg. Co., Buffalo, N. Y.
Lowell Wrench Co., Worcester, Mass. (Ratchet socket)
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Plomb Tool Co., Los Angeles, Calif.
Rockford Screw Products Co., Rockford, Ill.
Snap-On Tools, Inc., Kenosha, Wis.
Starrett, L. S., Co., The, Athol, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Van Dorn Electric Tool Co., The, Towson, Md.
Vlchek Tool Co., The, Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Spanner

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Lunkenheimer Co., The, Cincinnati, Ohio.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Snap-On Tools, Inc., Kenosha, Wis.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Stevens, Walden, Inc., Worcester, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Spark Plug

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Hinsdale Manufacturing Co., Chicago, Ill.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Plomb Tool Co., Los Angeles, Calif.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Snap-On Tools, Inc., Kenosha, Wis.

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Stevens, Walden, Inc., Worcester, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Spud

Bernz, Otto, Co., Inc., Rochester, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Nye Tool & Machine Works, The, Chicago.
Plomb Tool Co., Los Angeles, Calif.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Structural and Construction

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.

ARMSTRONG

Chrome-Vanadium
SOCKETS
Drives, Ratchets and Sets

A complete line—all sizes, all types. Chrome-Vanadium Steel Sockets. Chrome plated. Drop forged Ratchets, handles and extensions. Matched sets in steel cases for every need. Drivelock feature locks socket to driver, driver to handle, etc.; make safe rigid tools. Prevents accidents for heads cannot pry or knock off. Write for Catalog.

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Klein-Logan Co., The, Pittsburgh, Pa.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Tap and Reamer

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Champion Blower and Forge Co., Lancaster, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Standard Tool Co., Cleveland, Ohio.
Starrett, L. S., Co., The, Athol, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Threaded Tap & Die Co., Greenfield, Mass.

Wrenches, Tool Post

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Twin

Bonney Forge & Tool Works, Allentown, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Yarn and Twine, Asbestos

Carey, Philip, Co., The, Lockland, O.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhopac Products Corp., Chicago, Ill.
Southern Friction Materials Co., Charlotte, N. C.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Yarn, Fodder (Tarred Sisal)

American Manufacturing Co., Brooklyn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hooven & Allison Co., The, Xenia, Ohio.
Wall Rope Works, Inc., New York, N. Y.

Yarn, Lath (Tarred Sisal)

American Manufacturing Co., Brooklyn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hooven & Allison Co., The, Xenia, Ohio.
St. Louis Cordage Mills, St. Louis, Mo. (Tarred or untarred)
Wall Rope Works, Inc., New York, N. Y.

Zinc Sheets and Bars

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit. (Bars and slabs)
Murphy, E. L., Chicago, Ill.
National Lead Co., New York, N. Y.
New Jersey Zinc Co., The, New York, N. Y.
Northwest Lead Co., Seattle, Wash. (Bars)

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MEMORANDA

TRADE NAME INDEX

an Alphabetical List of Trade Names Employed by Manufacturers of Mill, Mine, Power, and General Industrial Supplies, Equipment and Tools Whose Products Are Listed in this Directory Edition, with the Names of the Manufacturers and the Products to Which They Refer.

THE fact that trade names appear in this list does not mean that we guarantee them to be registered or the property of the manufacturers concerned.

WARNING—Therefore, no user of this directory should, without independent verification, rely upon any information appearing in this section when so doing might result in loss or damage of any kind.—McGraw-Hill Publishing Company, Inc.

In cases where two or more companies have submitted the same trade name for the same product and there is any question as to the rightful owner of the trade name, we have eliminated it entirely from our list.

Where initials are shown as trade names in this list, they are grouped at the start of listings under each letter. Where two or more separated words or hyphenated words constitute a trade name, such as "Sure Hold" or "Sure-Hold," the first word standing alone determines the location of the listing, whereas when the two words are used as one, such as "Surehold," the name is listed in order according to the entire word.

Some trade names may have been inadvertently omitted. At the same time, some names you consider to be trade names may not be such, in fact. Therefore, if you cannot locate the name for which you are looking in the "Trade Name Index" look for a similar name in the "Classified List" among the manufacturers shown under the product in which you are interested.

A

AA1 COPPER TIN BABBITT—Babbitt metal. Glacier Metal Co., Richmond, Va.

AAA—Hack saw blades. E. C. Atkins and Co., Indianapolis, Ind.

A.A.R.—Valves. Walworth Company, New York, N. Y.

A.B.C—Emery. Keystone Emery Mills, Philadelphia, Pa.

A.B.C.—Pipe hangers and beam clamps. Fee & Mason Mfg. Co., Inc., New York, N. Y.

ABC HEAT RESISTING BELT—Stitched canvas belting. Main Belting Co., Philadelphia, Pa.

A-C—Power transmission machinery. Allis-Chalmers Manufacturing Co., West Allis, Wis.

A.C.E.—Expansion bolt shields. Arrow Expansion Bolt Co., Marion, Ohio.

A.C.F. BERWICK — Electric metal and rivet heaters. American Car and Foundry Co., New York, N. Y.

A.C.F. — Lubricated plug type valves. American Car and Foundry Co., New York, N. Y.

AC SPRAYER—Portable electric spray unit. Simplex Spray Equipment Co., Chicago, Ill.

A.C.O.—Cutting oil. C. N. Sutton Chemical Co., Chicago, Ill.

A.H.M.—Hydrometers. Moeller Instrument Co., Inc., Brooklyn, N. Y.

A-MAL-GAM—Welding compound. Smith Welding Equipment Corp., Minneapolis, Minn.

A-R MIX—Refractory surfacing mortars. Quigley Co., Inc., New York.

A-Z—Circular saw set. E. C. Atkins and Co., Indianapolis, Ind.

A-S-E—Steel Equipment. All-Steel-Equip Corp., Aurora, Ill.

AARON—Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.

ABCO—Brass ferrules, flanges, cocks, solder, nipples, etc. The Atlas Brass Foundry Co., Columbus, Ohio.

ABRAM—Railroad car movers and cement finishing tools. Main Belting Co., Philadelphia, Pa.

ABRASOWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.

ACCO—Chain and utility jacks. American Chain Co., Inc., Bridgeport, Conn.

ACCOPAC—Cork gaskets. Armstrong Cork Products Co., Lancaster, Pa.

ACCURATE—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.

ACE—Woven brake lining. Russell Manufacturing Co., Middletown, Conn.

ACE HIGH—Hose. Home Rubber Co., Trenton, N. J.

ACE LIGHTWEIGHT — Shovels and spades. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.

ACIDSEAL—Paint. The B. F. Goodrich Rubber Co., Akron, Ohio.

ACIPCO—Pipe and pipe fittings. American Cast Iron Pipe Co., Birmingham, Ala.

ACME—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.

ACME—Casting brushes. The Osborn Manufacturing Co., Cleveland, Ohio.

ACME—Fire clay brick. General Refractories Co., Philadelphia, Pa.

ACME—Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.

ACME—Hand chain hoists. Union Mfg. Co., New Britain, Conn.

ACME—Leather belting. Bonner & Barnewall, Inc., New York, N. Y.

ACME—Post hole diggers. Iwan Brothers, South Bend, Ind.

ACME—Scribers. The Ruleta Co., Inc., New York, N. Y.

ACME SHIELDS—Grinder guards. Chicago Eye Shield Co., Chicago, Ill.

ACORN—Dies and holders. Greenfield Tap & Die Corp., Greenfield, Mass.

ACORN — Pump connections. Stevens, Walden, Inc., Worcester, Mass.

ACORN—Round leather belting. Graton & Knight Co., Worcester, Mass.

ACROLITE—Grinding wheels. E. C. Atkins and Co., Indianapolis, Ind.

ACTENIZED SUMET—Bronze bearings. Sumet Corp., Buffalo, N. Y.

ADA-STIC — Plastic insulating cement. Botfield Refractories Co., Philadelphia, Pa.

ADACAST—Dry refractory cement. Botfield Refractories Co., Philadelphia, Pa.

ADACHROME PLASTIC SUPER-CEMENT—Chrome base cement. Botfield Refractories Co., Philadelphia, Pa.

ADAHEARTH — Chrome earth cement. Botfield Refractories Co., Philadelphia.

ADALOX—Sandpaper, cloth and combination. Behr-Manning Corporation, Troy, N. Y.

ADAMANT—Babbitt. Magnolia Metal Co., Elizabeth, N. J.

ADAMANT—Fire brick and cement. Botfield Refractories Co., Philadelphia, Pa.

ADAPATCH—Plastic fire brick material. Botfield Refractories Co., Philadelphia.

ADAPRODUCTS—High temperature cement, etc. Botfield Refractories Co., Philadelphia, Pa.

ADDOWEIGHT—Totalizing dial scales. Merrick Scale Mfg. Co., Passaic, N. J.

ADJUSTI—Sump covers and discharge pipes. Yeomans Brothers Co., Chicago.

ADJUSTO — Fuse pullers. The Safety Equipment Service Co., Cleveland, Ohio.

ADJUSTOFIT—Steel bins. Art Metal Construction Co., Jamestown, N. Y.

ADJUSTOGLAS — Goggles. The Safety Equipment Service Co., Cleveland, Ohio.

ADMIRAL—Measuring tape. Eugene Dietzgen Co., Chicago, Ill.

ADPASCO—Pump packing. Advance Packing and Supply Co., Chicago, Ill.

ADVANCE SAFETY—Car wrench. Advance Car Mover Co., Inc., Appleton, Wis.

ADVANCED DESIGN — Hoists. Coffing Hoist Co., Danville, Ill.

AEMCO—Ingot iron and steel sheets and plates, and spiral welded pipe. The American Rolling Mill Co., Middletown, Ohio.

AEQUITAS — Printing scales. Merrick Scale Mfg. Co., Passaic, N. J.

UMI

AERISWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
AERO—Fire hose. The Republic Rubber Co., Youngstown, Ohio.
AERO-L-STAGE—Portable Compressors. Worthington Pump & Machinery Corp., Harrison, N. J.
AERO-VIBE—Vibrating screens. Allis-Chalmers Manufacturing Co., West Allis, Wis.
AER-O-MIX—Water mixer. Vogt Brothers Mfg. Co., Louisville, Ky.
AESCO—Sharpening stones, etc. American Emery & Stone Co., New York, N. Y.
AETNA—Elevator belting. The Mechanical Rubber Co., Passaic, N. J.
AETNA—Post hole diggers. Iwan Brothers, South Bend, Ind.
APMIC—Hose. New York Belting & Packing Co., Passaic, N. J.
AGATHON—Alloy steels. Alloy Steel Div., Republic Steel Corp., Massillon, Ohio.
AGAWAM — Steel. Ludlum Steel Co., Watervliet, N. Y.
AGITATOR SPRAYIT—Paint sprays. The Electric Sprayit Co., South Bend, Ind.
AGRILITE—Bearing metal. American Injector Co., Detroit, Mich.
AGRIPPA—"C" clamps and tool holders. J. H. Williams & Co., New York, N. Y.
AIR BOOSTER—Blow guns. Baker-Hansen Mfg. Co., Alameda, Calif.
AIR DRAULIC—Face and knife grinders. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
AIR-GAS-POP—Relief valves. The Lunkenheimer Co., Cincinnati, Ohio.
AIR KING—Hose couplings and clamps. Dixon Valve & Coupling Co., Philadelphia, Pa.
AIR LINE—Cutting tools. Cowles Tool Co., Cleveland, Ohio.
AIR-LIQUID—Cocks. The Lunkenheimer Co., Cincinnati, Ohio.
AIR-VAC—Vacuum cleaners. Baker-Hansen Mfg. Co., Alameda, Calif.
AIRCO—Oxygen and acetylene, electrodes and rods. Air Reduction Sales Co., New York, N. Y.
AIRCO-DB—Welding and cutting apparatus and supplies. Air Reduction Sales Co., New York, N. Y.
AIRCUSHION VALVES—Air compressor valves. Pennsylvania Pump & Compressor Co., Easton, Pa.
AIRISTOCRAT—Propeller fan blade. The Torrington Manufacturing Co., Torrington, Conn.
AIRSPRING — Automatic grease cups. Hunter Pressed Steel Co., Lansdale, Pa.
AIRVULC—Plastic rubbers and liquid rubber compounds. Self Vulcanizing Rubber Co., Inc., Chicago, Ill.
AIRXPEL—Bucket type. Steam traps. Wright-Austin Co., Detroit, Mich.
AJAX—Alcohol mouth blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
AJAX—Belting and hose. Hewitt Rubber Corp., Buffalo, N. Y.
AJAX—Concrete inserts. Security Insert Co., Philadelphia, Pa.
AJAX—Drill rods. Kidd Drawn Steel Co., Aliquippa, Pa.
AJAX—Fire extinguishers, engines, etc. The Safety Fire Extinguisher Co., New York, N. Y.
AJAX—Insulating varnishes and compounds. Sherwin-Williams Co., Cleveland, Ohio.
AJAX—Lawn sprinkler. W. D. Allen Manufacturing Co., Chicago, Ill.
AJAX—Lubricators. Consolidated Brass Co., Detroit, Mich.
AJAX—Steel loading chain and dredge chain. American Chain Co., Inc., Bridgeport, Conn.
AJAX—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
AJAX—Wheelbarrows. Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
AKON—Boiler feedwater treatment. Allis-Chalmers Manufacturing Co., West Allis, Wis.
AKRO-METAL—Corrugated gaskets. Akron Metallic Gasket Co., Akron, Ohio.
AKRON—Belting and hose. The B. F. Goodrich Co., Akron, Ohio.
AKRON—Gaskets. Akron Metallic Gasket Co., Akron, Ohio.
AKRONITE—Sheet packing. Akron Metallic Gasket Co., Akron, Ohio.
AL-LITE—Alloy hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
ALBANY—Alloy tool steel. Ludlum Steel Co., Watervliet, N. Y.
ALBANY—Grease. Adam Cook's Sons, Inc., Linden, N. J.
ALCO—Grease cups. Consolidated Brass Co., Detroit, Mich.
ALCOA—Aluminum. Aluminum Company of America, Pittsburgh, Pa.
ALENCO—Fire hose unit cabinets. W. D. Allen Mfg. Co., Chicago, Ill.
ALERT—Portable watchman's clock. Detex Watchclock Corp., Chicago, Ill.
ALFITE—Fire extinguishers and systems. American-LaFrance and Foamite Corp., Elmira, N. Y.
ALFOL—Heat insulation. Alfol Insulation Co., Inc., New York, N. Y.
ALFRESCO—Paint. The Reardon Co., St. Louis, Mo.
ALL METAL LINE (THE)—Sawmill machinery. Memphis Machine Works, Memphis, Tenn.
ALL PURPOSE—Bench type grinder. Foley Manufacturing Co., Inc., Minneapolis, Minn.
ALL PURPOSE SPRAYIT—Paint sprays. The Electric Sprayit Co., South Bend, Ind.
ALLEN—Cap and set, shoulder screws, etc. The Allen Mfg. Co., Hartford, Conn.
ALLEN RANDALL—Bolt clippers, chain cutters and nutsplitters. H. K. Porter, Inc., Everett, Mass.
ALLGOOD CORD—Hose. Goodall Rubber Co., Philadelphia, Pa.
ALLIGATOR—Steel belt fasteners, belt fasteners and belt cutters. Flexible Steel Lacing Co., Chicago, Ill.
ALLIGATOR—Swiss pattern files. Carson-Newton Co., Newark, N. J.
ALLIGATOR—Wrenches. John A. Roebling's Sons Co., Trenton, N. J.
ALLOWALT — Aluminous oxide wheels. Waltham Grinding Wheel Co., Waltham, Mass.
ALLSIZE—Hose clamps. The Washburn Co., Worcester, Mass.
ALLWEATHER — Fire extinguishers. American-LaFrance and Foamite Corp., Elmira, N. Y.
ALLWORK—Rubber belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
ALMA—Heater brush. Worcester Brush & Scraper Co. (Division Mason-Worcester Co.), Worcester, Mass.
ALMETL—Fire doors. Merchant & Evans Co., Philadelphia, Pa.
ALNOR—Pyrometers, indicating thermometers, etc. Illinois Testing Laboratories, Inc., Chicago, Ill.
ALOYCO—Valves and fittings. Alloy Steel Products Co., Linden, N. J.
ALPHA—Oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
ALPO—Reamers, twist drills, etc. Alvord-Polk Tool Co., Millersburg, Pa.
ALTA—Portable electric tools. Wappat, Inc., Pittsburgh, Pa.
ALUMIKOTE—Aluminum paint. Vita-Var Corp., Newark, N. J.
ALUMINWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
ALUNDUM—Grinding wheels and safety treads. Norton Co., Worcester, Mass.
ALUPAK—Metallic gaskets. Felt Products Mfg. Co., Chicago, Ill.
ALVOR—Constant level oil control. The Lunkenheimer Co., Cincinnati, Ohio.
ALWAYS READY—Gasoline blow torches. Schaefer & Beyer, Inc., Newark, N. J.
ALWAYS READY—Wrenches. J. H. Williams & Co., New York, N. Y.
ALWAYS RELIABLE—Torches, furnaces, plumbers' tools, smoke testing machines, etc. Otto Bernz Co., Inc., Rochester, N. Y.
AM-CRAFT—Light duty lathe chucks. Westcott Chuck Co., Oneida, N. Y.
AMALGUM—Belting leather. Charles L. Ireson Co., Philadelphia, Pa.
AMBEST—Metallic packing. Eureka Packing Co., and Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
AMBLER—Asbestos products. Keasbey & Mattison Co., Ambler, Pa.
AMBRAC—Sheets, wire rods, and tubes. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
AMCO—Brake linings, clutch facings, packings and gaskets. Asbestos Mfg. Co., Huntington, Ind.
AMCO—Humidifying apparatus. Grinnell Co., Inc., Providence, R. I.
AMCO—Soldering equipment and metallic coating. American Solder & Flux Co., Philadelphia, Pa.
AMCO ALL WEATHER—Manila rope. American Manufacturing Co., Brooklyn, N. Y.
AMCO ALL WEATHER—Manila rope. St. Louis Cordage Mills, St. Louis, Mo.
AMERICA—Round and flat leather belting. Johnson Belting Co., New York, N. Y.
AMERICAN—Chains. American Chain Co., Inc., Bridgeport, Conn.
AMERICAN—Cold rolled strip steel and flat wire. Peter A. Frasse & Co., Inc., New York, N. Y.
AMERICAN—Files and rasps. Nicholson File Co., Providence, R. I.
AMERICAN—Industrial instruments. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
AMERICAN—Logging tools. American Logging Tool Co., Evart, Mich.
AMERICAN—Manila and transmission rope. St. Louis Cordage Mills, St. Louis, Mo.
AMERICAN—Oil filters. The Burt Manufacturing Co., Akron, Ohio.
AMERICAN—Steel wool. American Steel Wool Mfg. Co., Inc., Long Island City, N. Y.
AMERICAN—Water meters. Buffalo Meter Co., Buffalo, N. Y.
AMERICAN ALL STEEL—Load binders. American Logging Tool Co., Evart, Mich.
AMERICAN BEAUTY — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
AMERICAN MARINE—Babbitt. United American Metals Corp., Brooklyn, N. Y.
AMERICAN PATENT JOINT — Leather link belting and floor mats. Chas. A. Schieren Co., New York, N. Y.
AMERICAN QUICK COUPLINGS—Couplings. American Quick Coupling Co., San Francisco, Calif.
AMERICAN SEAL—Cement, compounds, paints, etc. The Wm. Connors Paint Mfg. Co., Troy, N. Y.
AMERICAN SWISS — Files and tools. American Swiss File & Tool Co., Elizabeth, N. J.
AMERICORE—Electrical wire and cables. American Steel & Wire Co., Chicago, Ill.
AMES—Condensation and vacuum pumps. Domestic Engine & Pump Co., Shippensburg, Pa.
AMES ALLOY—Packing. U. S. Indestructible Gasket Co., Brooklyn, N. Y.
AMEXO—Roof coating. American Asphalt Paint Co., Chicago, Ill.
AMINCO—Refrigeration specialties. American Injector Co., Detroit, Mich.
AMORIZE — Maintenance paints. Carter Paint Co., Liberty, Ind.
AMPERE—Canvas stitched belting. Victor Balata & Textile Belting Co., New York, N. Y.
AMPCO METAL — Special bronze alloy. Ampco Metal, Inc., Milwaukee, Wis.
ANACONDA—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
ANACONDA — Non-ferrous sheets, rod, pipe, etc. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
ANACONDA — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
ANCHOR—Brass and bronze. Federated Metals Corp., New York, N. Y.
ANCHOR—Car rerailers, trench and track braces, puller-jacks, puller hoists and wheel and gear pullers. Edelblute Manufacturing Co., Reynoldsville, Pa.
ANCHOR—Leather belting. Page Belting Co., Concord, N. H.
ANCHOR—Non-ferrous metals. Federated Metals Corp., New York, N. Y.
ANCHOR—Raw hide belt lacing. California Tanning Co., St. Louis, Mo.
ANCHOR—Sisal rope. American Manufacturing Co., Brooklyn, N. Y.
ANDERSON—Oil burners. Davison Combustion Co., Pittsburgh, Pa.
ANDREWS—Sockets. Morse Twist Drill & Machine Co., New Bedford, Mass.
ANDROCK—Spring cotters. The Washburn Co., Worcester, Mass.
ANGORA BRAND — Round belting. F. Raniville Co., Grand Rapids, Mich.
ANGULAR—Steel grit. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
ANGULAR STEEL GRIT—Sand blast abrasives. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
ANHYDROUS—Belting leather. Charles L. Ireson Co., Philadelphia, Pa.
ANN ARBOR—Road rollers and baling presses. Tallman Manufacturing Co., Shelbyville, Ill.
ANNITE—Cleaning compounds. Quigley Co., Inc., New York, N. Y.
ANODE—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
ANTELOPE—Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Rubber Co., Akron, Ohio.
ANTHRACITE—Valves. The Diamond Rubber Co., Inc., Akron, Ohio.
ANTI LINK—Spring or lock washers. The American Nut & Bolt Fastener Co., Pittsburgh, Pa.
ANTI SWEAT—Insulation. Johns-Manville, New York, N. Y.
ANVIL BRAND—Tackle blocks, bushings, rope sheaves and thimbles, etc. Western Block Co., Lockport, N. Y.
APCO—Valves, steam traps, primers and boiler feed pump regulators. Automatic Primer Co., Chicago, Ill.
APEX—Carbon dioxide recorders and indicators. Uehling Instrument Co., Paterson, N. J.
APEX—Factory interior paint. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
APEX—Hose. W. H. Salisbury & Co., Inc., Chicago, Ill.

APEX—Round leather belting. Johnson Belting Co., New York, N. Y.
APOLLO — Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
AQUA-AIR—Needle valves. The Lunkenheimer Co., Cincinnati, Ohio.
AQUA HYDRAULIC — Packing. Johns-Manville, New York, N. Y.
AQUAREX—Treatment for fire hose jackets. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
AQUASEAL — Waterproof joint sealing compound. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
AQUATITE—Roofing cement. The Wills Products Co., New York, N. Y.
ARCADE—Files and rasps. Nicholson File Co., Providence, R. I.
ARCADIA—Lubricators. Victor Lubricator Co., Chicago, Ill.
ARCGRIP—Short belt drives (idlers). I. G. Downs, Denver, Colo.
ARCH-CRIMP—Wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
ARCO—Boilers, radiators, convectors, copper pipe and fittings. American Radiator Co., New York, N. Y.
ARCO—High alumina brick. General Refractories Co., Philadelphia, Pa.
ARCTIC—Automatic grease cups. W. D. Allen Mfg. Co., Chicago, Ill.
ARCTIC—Hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ARCTIC—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
ARIMEX—Elevator belting. New York Belting & Packing Co., Passaic, N. J.
ARISTOCRAT—Tape-rules. The Lufkin Rule Co., Saginaw, Mich.
ARK BRAND—Leather transmission belting. Philadelphia Belting Co., Philadelphia, Pa.
ARK-VAC (Patented)—Flat leather transmission belting for short centers. Philadelphia Belting Co., Philadelphia, Pa.
ARM & HAMMER—Anvils. The Columbus Anvil & Forging Co., Columbus, Ohio.
ARMCO—Spiral welded pipe; iron, steel and stainless steel sheets, plate, strip and coils. The American Rolling Mill Co., Middletown, Ohio.
ARMIDE — Carbide-tipped cutters. Armstrong Bros. Tool Co., Chicago, Ill.
ARMSTRONG—Steam traps. Armstrong Machine Works, Three Rivers, Mich.
ARMSTRONG — Tool holders, wrenches, clamps, lathe dogs, hi-speed steel, bits, blades and cutters, setting up tools, ratchet drills and machine shop specialties, etc. Armstrong Bros. Tool Co., Chicago, Ill.
ARMSTRONG BROS. — Pipe threading tools, pipe cutters, stocks and dies, pipe vises, wrenches, chain tongs, ratchets, etc. Armstrong Bros. Tool Co., Chicago.
ARMY & NAVY—Metal polish. The Grady Mfg. Co., Long Island City, N. Y.
ARNO—Conveyor belt, hose and dredge sleeves. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
ARROW—Food conveyor belting. The Mechanical Rubber Co., Passaic, N. J.
ARROW—Steel tanks, etc. The Novelty Steam Boiler Works Co., Baltimore, Md.
ART—Grease cups. Consolidated Brass Co., Detroit, Mich.
ASBESTO-SPONGE-FELTED — Insulation. Johns-Manville, New York, N. Y.
ASBESTOCEL — Insulation. Johns-Manville, New York, N. Y.
ASBESTOS-METALLIC — Asbestos sheet packing. A. W. Chesterton Co., Boston, Mass.
ASBESTOSITE—Motors. U. S. Electrical Motors, Inc., Los Angeles, Cal.
ASCOLOY—Rust and corrosion resisting alloy. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
ASGUM—Roof coating. American Asphalt Paint Co., Chicago, Ill.
ASHCROFT AMERICAN — Gauges. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
ASHWORTH — Shut-off nozzles. Elkhart Brass Mfg. Co., Elkhart, Ind.
ASLIQUE—Cement floor paint. American Asphalt Paint Co., Chicago, Ill.
ASTORIA—Pipe hangers. Fee & Mason Mfg. Co., Inc., New York, N. Y.
AT-LAST-A-TRAILER—Trailers. Moloch Foundry & Machine Co., Kaukauna, Wis.
ATHA PNEU—Alloy tool steel. Crucible Steel Co. of America, New York, N. Y.
ATHOL—Vises. Athol Machine & Foundry Co., Athol, Mass.
ATKINS—Saws, grinding wheels, files, belt wax, etc. E. C. Atkins & Co., Indianapolis, Ind.
ATLANTIC—Linen hose. American Fire Hose Co., Philadelphia, Pa.
ATLANTIC TYPE — Marine boiler feed pumps. Dean Brothers Co., Indianapolis, Ind.
ATLAS—Aluminum and leaded bronzes. Ampco Metal, Inc., Milwaukee, Wis.
ATLAS—Braided wire rope slings. Macwhyte Co., Kenosha, Wis.
ATLAS—Car movers. Appleton-Atlas Car Mover Corp., Milwaukee, Wis.
ATLAS — Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, Ohio.
ATLAS—Gaging tapes. The Lufkin Rule Co., Saginaw, Mich.
ATLAS—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
ATLAS—Post hole diggers. Iwan Brothers, South Bend, Ind.
ATLAS—Presses, lathes, drills, drill press attachments. Atlas Press Co., Kalamazoo, Mich.
ATLAS—Slide rules. Gilson Slide Rule Co., Stuart, Fla.
ATLAS—Steel. Ludlum Steel Co., Watervliet, N. Y.
ATLAS—Universal joints. The Gray & Prior Machine Co., Hartford, Conn.
ATLAS STANDARD—Bronze bushing stock. Atlas Brass Foundry, Los Angeles, Calif.
ATLASITE—Truck wheels. The Bassick Co., Bridgeport, Conn.
ATOMISTER — Portable electric spray unit. Simplex Spray Equipment Co., Chicago, Ill.
ATMOSET—High temperature cement. A. P. Green Fire Brick Co., Mexico, Mo.
AUROCHS — Conveyor belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
AUSTIN—Separators. Wright-Austin Co., Detroit, Mich.
AUSTRALIAN—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
AUT-O-DOR—Electric door operator. Richards-Wilcox Mfg. Co., Aurora, Ill.
AUTEX—Automatic extension reels for electric lamps. The Cincinnati Specialty Mfg. Co., Inc., Cincinnati, Ohio.
AUTO-BLOC—Roller bearing hoists. David Round & Son, Cleveland, Ohio.
AUTO-MARINE—Graphite products. Joseph Dixon Crucible Co., Jersey City, N. J.
AUTO-SET—Circular saw miter gages. Delta Mfg. Co., Milwaukee, Wis.
AUTO START—Electric motors and grinders. U. S. Electrical Mfg. Co., Los Angeles, Calif.
AUTOCRAT — Bushing bronze. United American Metals Corp., Brooklyn, N. Y.
AUTOFYRESTOP—Fire extinguishers. Merchant & Evans Co., Philadelphia, Pa.
AUTOMATIC NUTS—Lock nuts. Automatic Nut Co., Lebanon, Pa.
AUTOTHERM—Automatic relief valves. Watts Regulator Co., Lawrence, Mass.
AUTOVENT—Exhaust propeller fans. Autovent Fan & Blower Co., Chicago, Ill.
AUTOVEYOR—Automatic trolley bucket system. Link-Belt Co., Chicago, Ill.
AUXILIARY — Graphite feeders. The Lunkenheimer Co., Cincinnati, Ohio.
AUXILIARY SCREW—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
AVALANCHE—Snow pusher. Iwan Brothers, South Bend, Ind.
AVIALITE—Rods for valve seatings and stems. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
AXIFLO—Deep well pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
AZROO—Roof coating. American Asphalt Paint Co., Chicago, Ill.

B

B—Wrenches, clamps, screw drivers, etc. The Billings & Spencer Co., Hartford, Conn.
BB—Polishing lathe. Clizbe Bros. Mfg. Co., Plymouth, Ind.
B-B—Machine bolt anchors. Star Expansion Bolt Co., New York, N. Y.
B & B—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
B. B. BROS.—Hand hoists. Beebe Bros., Seattle, Wash.
B-C—Milling cutters, hobs and reamers. Barber-Colman Co., Rockford, Ill.
B & C—Wrenches. Bemis & Call Co., Springfield, Mass.
B & H—Lock and spring washers. Butcher & Hart Mfg. Co., Toledo, Ohio.
B & L—Tackle blocks. Boston & Lockport Block Co., East Boston, Mass.
B. & P.—Sheet and rod packings. New York Belting & Packing Co., Passaic, N. J.
B. O.—Valves, swing joints, etc. L. J. Bordo Co., Inc., Glenside, Pa.
BABBITRITE—Babbitt retaining material. Products Manufacturing Co., Milwaukee, Wis.
BABCOCK—Fire Extinguishers. American-La France and Foamite Corp., Elmira, N. Y.
BABY PLUGGER—Drill. The Dallett Co., Philadelphia, Pa.
BABY RING—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
BACHELDER—Adjustable steam indicators. William H. Murray, Brooklyn, N. Y.
BACO—Truck wheels. The Bassick Co., Bridgeport, Conn.
BADGER—Manila rope. John Rauschenberger Co., Milwaukee, Wis.
BADGER NEVER SLIP—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BADGER POWER BOY—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BADGER POWER KING—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BAK-KUT—Leather belting. F. Raniville Co., Grand Rapids, Mich.
BAKER FABIC—Fire hose. Hewitt Rubber Corp., Buffalo, N. Y.
BALD EAGLE — Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
BALLTITE—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
BALTIMORE—Water filters. Loomis-Manning Filter Manufacturing Co., Philadelphia, Pa.
BALTO — Steel tanks, etc. The Novelty Steam Boiler Works Co., Baltimore, Md.
BALTOBELT—Leather belting. Baltimore Belting Co., Baltimore, Md.
BANCO—Axes and hatchets. Sandvik Saw & Tool Corp., Minneapolis, Minn.
BANKO—Scythes. Sandvik Saw & Tool Corp., Minneapolis, Minn.
BANNER—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BANNER—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
BANNER—Measuring tapes, calipers and dividers. The Lufkin Rule Co., Saginaw, Mich.
BANROC — Insulation. Johns - Manville, New York, N. Y.
BANTAM—Socket wrenches. J. H. Williams & Co., New York, N. Y.
BANTAM WEIGHT—Crawler cranes. Harnischfeger Corp., Milwaukee, Wis.
BARCOL—Door operators, fans, etc. Barber-Colman Co., Rockford, Ill.
BARD—Adjustable guide (bushing). Armstrong Manufacturing Co., Bridgeport, Conn.
BARKEEPERS' FRIEND — Metal polish. Walter W. Miller Co., Indianapolis, Ind.
BARNES—Hack saw blades. W. O. Barnes Co., Inc., Detroit, Mich.
BARRELED SUNLIGHT—Paint and enamel products. U. S. Gutta Percha Paint Co., Providence, R. I.
BARRETT—Jacks. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
BARRY—Pulleys, hangers, bearings, etc. R. & J. Dick Co., Inc., Passaic, N. J
BARTH—Lifting jacks. Oliver-Barth Jack Co., Milwaukee, Wis.
BARTLETT—Tree trimmers, compound lever snips. Bartlett Manufacturing Co., Detroit, Mich.
BARTLEY NUT & BOLT FASTENERS. Nut locks. American Nut and Bolt Fastener Co., Pittsburgh, Pa.
BASA—Hammers. Greene, Tweed & Co., New York, N. Y.
BASCO—4-cycle gasoline motor automotive equipment. Briggs & Stratton Corp., Milwaukee, Wis.
BASMOR—Gas fired boilers, conversion burners and relief valves. Bastian Morley Co., Laporte, Ind.
BASMOR EVERDUR—Copper range boilers. Bastian-Morley Co., Laporte, Ind.
BASSICK—Truck casters. Bassick Co., Bridgeport, Conn.
BATES—Steel mule tractors. Foote Bros. Gear & Machine Co., Chicago, Ill.
BATTLESHIP—Fire hose. Pioneer Rubber Mills, San Francisco, Calif.
BAY CITY—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
BAY STATE—Cross-cut saws. Simonds Saw and Steel Co., Fitchburg, Mass.
BAY STATE—Suction hose and packing. Boston Woven Hose & Rubber Co., Cambridge, Mass.
BEACH—Chucks. Morse Twist Drill & Machine Co., New Bedford, Mass.
BEADED END—Hose joints. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
BEAMAN STADIA ARC—Transits. W. & L. E. Gurley, Troy, N. Y.
BEAN-HUGGER—Trolley hoists. David Round & Son, Cleveland, Ohio.
BEAR BRAND—Marine oakum. Rochester Ropes, Inc., Jamaica, N. Y.
BEAR BRAND—Textile aprons. Gross Rubber Co., Sharon, Pa.
BEAUTY—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
BEAVER—Pipe threading and cutting tools and power units. Beaver Pipe Tools, Inc., Warren, Ohio.
BEAVER—Waterproof leather belting. Milwaukee Belting Co., Milwaukee, Wis.
BEAVERKILL—Leather belting. Baldwin Belting & Leather Co., Inc., New York, N. Y.

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BECKER—Vertical millers and die sinkers. Reed Prentice Corp., Worcester, Mass.
BEDROCK—Leather belting. Whiting Leather & Belting Co., Long Island City. N. Y.
BEECH CREEK—Fire clay brick. General Refractories Co., Philadelphia, Pa.
BELAND—Track drills. Tallman Manufacturing Co., Shelbyville, Ill.
BELLWOOD—Hose. Goodall Rubber Co., Philadelphia, Pa.
BELMONT—Packings. The Belmont Packing & Rubber Co., Philadelphia, Pa.
BELT GRIP—Belt dressing. Degen-Fiege Belting Co., Los Angeles, Calif.
BELT SURFACER—Belt treatment. F. Raniville Co., Grand Rapids, Mich.
BELTAZ—Belt dressing. American Asphalt Paint Co., Chicago, Ill.
BELTINE—Belt dressing. Jos. C. Paulus & Co., Philadelphia, Pa.
BELTPACO—Rubber transmission belting. New York Belting & Packing Co., Passaic, N. J.
BELTPACO JUNIOR—Transmission belt. New York Belting & Packing Co., Passaic, N. J.
BEMIS—Heater brush. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
BEN LOCK—Woven brake lining. Russell Manufacturing Co., Middletown, Conn.
BENNETT—Oil cups and covers, emery wheel dressers and cutters. Bay State Stamping Co., Worcester, Mass.
BENSON—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
BERG—Pliers and chisels. Sandvik Saw & Tool Corp., Minneapolis, Minn.
BERLOY—Bins, cabinets, shelving, tables, etc. The Berger Manufacturing Co. (Division of Republic Steel Corp.), Canton, Ohio.
BERNARD—Pliers, nippers, belt punches and metal punches. The Wm. Schollhorn Co., New Haven, Conn.
BEST GRADE—Leather belting and belt cement. Detroit Oak Belting Co., Detroit, Mich.
BEST MAIDE—Tool grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
BESTA-MONIA—Packings and gaskets. Johns-Manville, New York, N. Y.
BESTALLIC—Asbestos pump and valve stem packing. Advance Packing & Supply Co., Chicago, Ill.
BESTALLINE—Asbestos sheet packing. Advance Packing & Supply Co., Chicago, Ill.
BESTOIL—Threading oil. The Oster Manufacturing Co., Cleveland, Ohio.
BESTOLIFF—Lead seal joint compound, metallic paste and valve stem packing. I. H. Grancell, Los Angeles, Calif.
BETA BABBITT—Babbitt metals. Glacier Metal Co., Richmond, Va.
BETH-CU-LOY — Copper bearing steel pipe roofing and sheet metal. Bethlehem Steel Co., Bethlehem, Pa.
BETHANIZED—Zinc-coated wire and wire fence. Bethlehem Steel Co., Bethlehem, Pa.
BETHCO—Barbed wire. Bethlehem Steel Co., Bethlehem, Pa.
BETHLEHEM—Pipe, bolts, nuts, etc. Bethlehem Steel Co., Bethlehem, Pa.
BETTENDORF—Oil burners. Micro-Westco, Inc., Bettendorf, Iowa.
BETTER-BILT—Shovels and spades. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BETTER BUILT—Finished bushings. The Buckeye Brass & Mfg. Co., Cleveland, O.
BEVELRITE—Tool and knife grinders. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
BIG BEAR—Heavy duty service station vises. The Charles Parker Co., Meriden, Conn.
BIG BULL—Red and black agricultural belting. The Hettrick Mfg. Co., Toledo, Ohio.
BIG CHIEF—Fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
BIG FIST—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
BIG LARRY—Quad trucks. The Service Caster & Truck Co., Albion, Mich.
BIG MIKE—Tri-wheel trucks. The Service Caster & Truck Co., Albion, Mich.
BINGHAMTON (The) — Flexible shafts and equipment. Swartz & White Mfg. Co., Binghamton, N. Y.
BITHERMAL—Temperature control for furnaces. Harold E. Trent Co., Philadelphia, Pa.
BLACK BULL—Stitched canvas belting. The Hettrick Mfg. Co., Toledo, Ohio.
BLACK CAT—Mops. Sullivan Brush & Mop Co., Terre Haute, Ind.
BLACK & DECKER—Portable electric tools. The Black & Decker Mfg. Co., Towson, Md.
BLACK DEVIL—Twist drills. Arthur Colton Co., Detroit, Mich.
BLACK DIAMOND—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
BLACK DIAMOND—Carbon tool steels. Crucible Steel Co. of America, New York, N. Y.
BLACK DIAMOND—Files and rasps. Nicholson File Co., Providence, R. I.
BLACK DIAMOND—Friction tape. The M. W. Dunton Co., Providence, R. I.
BLACK DIAMOND—Tarred roofing and building felt. The Barrett Co., New York, N. Y.
BLACK GIANT—Valve cups. Parker Cup & Specialty Works, Inc., Parkers Landing, Pa.
BLACK GOLD—Coal shovels. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BLACK REXALL—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
BLACK SEAL—Belting, hose and packing. Home Rubber Co., Trenton, N. J.
BLACKFIN—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BLACKHAWK—Hydraulic jacks and wrenches. Blackhawk Mfg. Co., Milwaukee, Wis.
BLACKHAWK—Punches. Whitney Metal Tool Co., Rockford, Ill.
BLACKRIB—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BLACKSNAKE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BLACOTE — Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
BLAKE—Combination pipe vises. Prentiss Vise Co., New York, N. Y.
BLAKE—Pipe hangers. Fee & Mason Mfg. Co., Inc., New York, N. Y.
BLAKE KNOWLES — Steam pumps. Worthington Pump and Machinery Corp. Harrison, N. J.
BLANCO—Water softeners. Pacific Chemical Co., Los Angeles, Calif.
BLAXTICK—Belt dressing. Main Belting Co., Philadelphia, Pa.
BLIZZARD—Air coolers. Wright-Austin Co., Detroit, Mich.
BLIZZARD—Lanterns. R. E. Dietz Co., New York, N. Y.
BLOCKER GREGORY—Textile mill receptacles. Fibre Specialty Mfg. Co., Kennett Square, Pa.
BLU-FORGE—Wrenches, nail sets and center punches. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
BLU-MOL — Hack saw blades. Millers Falls Co., Greenfield, Mass.
BLUE BIRD—Tinners' snips and adjustable wrenches. Bergman Tool Mfg. Co., Buffalo, N. Y.
BLUE BOY—Differential chain hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
BLUE BOY—Steel trailer trucks. Nutting Truck Co., Faribault, Minn.
BLUE CENTER—Wire rope. John A. Roebling's Sons Co., Trenton, N. J.
BLUE DIAMOND—Coal shovels. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BLUE DIAMOND—Twist drills. Whitman and Barnes, Inc., Detroit, Mich.
BLUE END—Hack saws. E. C. Atkins and Co., Indianapolis, Ind.
BLUE GRASS BRAND—Wiping cloths. Louisville Sanitary Wipers Co., Inc., Louisville, Ky.
BLUE HEART—Manila rope. The Hooven & Allison Co., Xenia, Ohio.
BLUE LABEL—Pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
BLUE LINE—Hose. Whitehead Bros. Rubber Co., Trenton, N. J.
BLUE LINE—Logging tools. American Logging Tool Co., Evart, Mich.
BLUE NECK—Polishing leather. Greene, Tweed & Co., New York, N. Y.
BLUE POINT—Wrenches. Snap-On Tools, Inc., Kenosha, Wis.
BLUE RIBBON—Belt dressings and wire rope lubricants. Jobbers Mfg. Co., Chicago, Ill.
BLUE RIBBON—Ladders. The Goshen Mfg. Co., Inc., Goshen, Ind.
BLUE RIVER — Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
BLUE STAR—Files and rasps. The Cleveland File Co., Cleveland, Ohio.
BLUE STAR—Machine knives. E. C. Atkins and Co., Indianapolis, Ind.
BLUE STONE—Leather belting. W. S. Nott Co., Minneapolis, Minn.
BLUE STREAK—Hand lift trucks. The Yale & Towne Mfg. Co., Philadelphia, Pa.
BLUE TIP—Bronze rods. Mueller Brass Co., Port Huron, Mich.
BLUE TIP—Saw bits. Simonds Saw & Steel Co., Fitchburg, Mass.
BLUE TIP—Saw teeth. Simonds Saw and Steel Co., Fitchburg, Mass.
BLUETEX—Asbestos sheet. Felt Products Mfg. Co., Chicago, Ill.
BOB-O-LINK—Fibre link mats. Rockwood Mfg. Co., Indianapolis, Ind.
BODY-BUILDERS—C-Clamps. J. H. Williams & Co., New York, N. Y.
BOICE-CRANE — Woodworking machinery, grinding attachments, jointers, lathes, etc. Boice-Crane Co., Toledo, Ohio.
BOICOURT—Double stroke pumps. Midland Mfg. Co., Ft. Worth, Tex.
BOLIVIAN—Water hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
BOLTITE JOINT — Cast iron gas pipe. McWane Cast Iron Pipe Co., Birmingham, Ala.
BOLL-WEEVIL—Pipe tongs. J. H. Williams & Co., New York, N. Y.
BOND — Power transmitting specialties, material handling equipment and truck casters. Bond Foundry and Machine Co., Manheim, Pa.
BOND—Sisal rope. American Manufacturing Co., Brooklyn, N. Y.
BONDARON—Leather belting and loom straps. Charles Bond Co., Philadelphia, Pa.
BONDERITE—Rust proofing. Parker Rust Proof Co., Detroit, Mich.
BONDEX—Cement paint for masonry surfaces only. The Reardon Co., St. Louis, Mo.
BONDEX—Leather belting and loom straps. Charles Bond Co., Philadelphia, Pa.
BONDFLEX—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
BONDIT—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
BONDTRU—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
BONNEY—Wrenches, pipe and welding fittings. Bonney Forge and Tool Works, Allentown, Pa.
BORAX-ETTE—Welding compound. Cortland Welding Compound Co., Cortland, N. Y.
BORDEAUX — Hand sprayer. Goulds Pumps, Inc., Seneca Falls, N. Y.
BORDO—Valves, swing joints, etc. L. J. Bordo Co., Inc., Glenside, Pa.
BORITE—Abrasive wheels. Vitrified Wheel Co., Westfield, Mass.
BOROLON—Grinding wheels, rubbing bricks, etc. Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
BOSCH—Automatic force feed lubricators. United American Bosch Corp., Springfield, Mass.
BOSS—Belting. Home Rubber Co., Trenton, N. J.
BOSS—Hose couplings. Dixon Valve & Coupling Co., Philadelphia, Pa.
BOSS—Leather aprons. California Tanning Co., St. Louis, Mo.
BOSS—Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
BOSS SUPER—Couplings and clamps. Dixon Valve & Coupling Co., Philadelphia, Pa.
BOSTON—Electric wire cutters. H. K. Porter, Inc., Everett, Mass.
BOSTONG—Pipe chain wrenches. Walworth Co., New York, N. Y.
BOULET—Micrometer test indicators. Zina Goodell Corp., Salem, Mass.
BOVE ALL—Babbitt metal. Federated Metals Corp., New York, N. Y.
BOWES—Hose racks. W. D. Allen Mfg. Co., Chicago, Ill.
BOWLUS—Joist boring machine. Ideal Commutator Dresser Co., Sycamore, Ill.
BOXOCKET—Wrenches. Snap-On Tools, Inc., Kenosha, Wis.
BOXTITE—Wrenches. Stevens, Walden, Inc., Worcester, Mass.
BOYER—Pneumatic tools. Chicago Pneumatic Tool Co., New York, N. Y.
BRAD FOOTE—Gears and speed hammers. Foote Gear Works, Inc., Cicero, Ill.
BRAEBURN—Tool steel. Peter A. Frasse & Co., Inc., New York, N. Y.
BRANFORD—Oil burners. Malleable Iron Fittings Co., Branford, Conn.
BRAPACO—Asbestos joint runner and caulking jute. Eureka Packing Co., and Braiding and Packing Works of America, Inc., Brooklyn, N. Y.
BRASBESTOS—Packing rings. Federal Metallic Packing Co., Wakefield, Mass.
BRAZIL—Turnbuckles. Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
BREEZE-SPREADER — Circulating fans. Victor Electric Products, Inc., Cincinnati, Ohio.
BREEZO—Ventilating fans. Buffalo Forge Co., Buffalo, N. Y.
BRIAR EDGE—Scythes. American Fork & Hoe Co., Cleveland, Ohio.
BRICKLAYERS—Friction tape. The Mechanical Rubber Co., Passaic, N. J.
BRIDGE BUILDERS—Reversible ratchet wrench. Lowell Wrench Co., Worcester, Mass.
BRIGGS—Wrenches. Bemis & Call Co., Springfield, Mass.
BRIGHTON—Ash, garbage and refuse cans. The Witt Cornice Co., Cincinnati, Ohio.

BRIKLOK — High temperature cements. General Refractories Co., Philadelphia, Pa.
BRITENOL—Mill white paint. Vita-Var Corp., Newark, N. J.
BROBAS—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
BRONCHO—Suction hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
BRONCO—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BROOKBEST—Flax packing. Eureka Packing Co., and Braiding and Packing Works of America, Inc., Brooklyn, N. Y.
BROWN STRAND—Wire rope. Wire Rope Corp. of America, New Haven, Conn.
BROWNIE—Boiler signal for low water. Wright-Austin Co., Detroit, Mich.
BROWNIE—Lubricators. Essex Brass Corp., Detroit, Mich.
BROWNIE—Padlocks. Master Lock Co., Milwaukee, Wis.
BROWNING — V-drives, F H P pulleys, paper pulleys, fibre frictions and offset keystock. Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
BRUNOTTE—Sewage screens. Link-Belt Co., Chicago, Ill.
BRUTE—Lift trucks. Barrett-Cravens Co., Chicago, Ill.
BUCK HORN—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
BUCKEYE—Air hose. New York Belting & Packing Co., Passaic, N. J.
BUCKEYE—Bearings and bushings. The Buckeye Brass & Mfg. Co., Cleveland, Ohio.
BUCKEYE—Bolts. The Lamson & Sessions Co., Cleveland, Ohio.
BUCKEYE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
BUCKEYE—Manila rope. The Hooven & Allison Co., Xenia, Ohio.
BUCKEYE—Transmission belting, hose and splicing tape. The Mechanical Rubber Co., Passaic, N. J.
BUCKEYE—Steel and contractors' wheelbarrows. The Toledo Wheelbarrow Co., Toledo, Ohio.
BUCKEYE — Weldless wire chain. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
BUCKSKIN—Hose. Goodall Rubber Co., Philadelphia, Pa.
BUCO—Metal cleaners, detergents, etc. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
BUFCO—Forges. Buffalo Forge Co., Buffalo, N. Y.
BUFFALO—Elevator buckets. Link-Belt Co., Chicago, Ill.
BUFFALO—Fire extinguishers and chemical engines. Buffalo Fire Appliance Corp., Buffalo, N. Y.
BUFFALO—Polishing leather. Greene, Tweed & Co., New York, N. Y.
BUFFALO—Solid woven cotton belting. Buffalo Weaving & Belting Co., Buffalo, N. Y.
BUFFALO BALL—Rubber patches. R. Hoffeld & Co., Buffalo, N. Y.
BULL—Drag scrapers. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
BULL DOG — Brooms. Midwest Broom Manufacturing Co., Circleville, Ohio.
BULL DOG—Car movers. Safety Wrench & Appliance Co., Worcester, Mass.
BULL-DOG—Casters. The Service Caster & Truck Co., Albion, Mich.
BULL DOG—Clamps, bench vises and tool grinders. Western Hdwe. Mfg. Co., Milwaukee, Wis.
BULL DOG—Hose, belting, friction tape, welding tubing and rubber matting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
BULL DOG — Hose coupling and hose mender. W. D. Allen Mfg. Co., Chicago.
BULL DOG—Leather aprons. The Chicago Rawhide Mfg. Co., Chicago, Ill.
BULL DOG—Portable lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
BULL DOG—Shaft couplings. Huron Industries, Inc., Alpena, Mich.
BULL DOG—Shovels and spades. American Fork & Hoe Co., Cleveland, Ohio.
BULL DOG—Wire rope choker and arch lines. Wickwire Spencer Steel Co., New York, N. Y.
BULL DOG—Wire rope clips. The Lamson & Sessions Co., Cleveland, Ohio.
BULL DOG—Wrenches. J. H. Williams & Co., New York, N. Y.
BULL-PUP—Die stocks. The Oster Manufacturing Co., Cleveland, Ohio.
BULL TERRIER—Wrenches. J. H. Williams & Co., New York, N. Y.
BULLS HEAD—Flint paper sheets. Armour Sand Paper Works, Chicago, Ill.
BULL'S HEAD—Leather belting and packings. Chas. A. Schieren Co., New York.
BULLARD—First aid kit. E. W. Bullard Co., San Francisco, Calif.
BULLDOG — Coil and sash chain. The Hodell Chain Co., Cleveland, Ohio.
BULLDOG — Cut lacing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
BULLDOG—Quick opening, adjustable die-stock. The Oster Manufacturing Co., Cleveland, Ohio.
BULLDOZER—Shallow and deep well power pumps. The F. E. Myers & Bro. Co., Ashland, Ohio.
BULLFROG—Wheelbarrows, scrapers and concrete carts. Toledo Wheelbarrow Co., Toledo, Ohio.
BULLSEYE—Locomotive lubricators. Detroit Lubricator Co., Detroit, Mich.
BUNKER HILL BRAND—Lead products and zinc. Northwest Lead Co., Seattle, Wash.
BURMAK—Endless polishing belts and woven endless belts. Burrell Belting Co., Chicago, Ill.
BURMALINE—Transmission belting. Burrell Belting Co., Chicago, Ill.
BURNHAM—Pumps. Union Steam Pump Co., Battle Creek, Mich.
BURNISHINE—Metal polish, etc. J. C. Paul & Co., Chicago, Ill.
BURR—Broaching machines, cold saws, portable keyseaters and keyseat milling machines. John T. Burr & Son, Brooklyn, N. Y.
BURT SOLAR ATTACHMENT—Transits. W. & L. E. Gurley, Troy, N. Y.
BUSS—Electric fuses. Bussmann Mfg. Co., St. Louis, Mo.
BUSS SUPER-LAG FUSES — Renewable fuses. Bussmann Mfg. Co., St. Louis, Mo.
BUSSLIGHT—Portable adjustable electric lamps. Bussmann Mfg. Co., St. Louis, Mo.
BUSY—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
BUTTERFLY—Plug drills. Ingersoll-Rand Co., New York, N. Y.
BUZZER — Industrial gas equipment. Charles A. Hones, Inc., Baldwin, N. Y.
BYR-MA-CO—Grease and oil dissolver. The C. G. Buchanan Chemical Co., Cincinnati, Ohio.

C

C-22 — Insulating brick. Johns-Manville, New York, N. Y.
C. B. G.—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
C C QUALITY—Dredge and sling chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
C.E.S. CO.—Goggles. Chicago Eye Shield Co., Chicago, Ill.
C-H—Electric motor controllers, valve control and electric heaters. Cutler-Hammer, Inc., Milwaukee, Wis.
C&H—Faucets, etc. Cordley & Hayes, New York, N. Y.
C. & L. QUALITY LINE—Torches and fire pots. Clayton & Lambert Mfg. Co., Detroit, Mich.
C-H-L—Round belting. Geo. Rahmann & Co., New York, N. Y.
C. J. B.—Pillow blocks and ball bearings. Ahlberg Bearing Co., Chicago, Ill.
C-M—Electric wire rope hoists and overhead cranes. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
CM PULLER—Ratchet lever hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
C.M.C.—Hoists. Construction Machinery Co., Waterloo, Iowa.
CMT—Unit expansion clutches. Conway Clutch Co., Cincinnati, Ohio.
C.N.I.—Chrome nickel iron pipe. Walworth Co., New York, N. Y.
C. O. OBERG BRAND — Files. Sandvik Saw & Tool Corp., Minneapolis, Minn.
C. O. TWO—Fire extinguishers. C-O-Two Fire Equipment Co., Newark, N. J.
C P—Pneumatic and electric tools, compressors, etc. Chicago Pneumatic Tool Co., New York, N. Y.
"CV"—Chrome-vanadium wrenches. Bonney Forge and Tool Works, Allentown, Pa.
CABLE LUBRICATOR—Wire cable dressing. F. Raniville Co., Grand Rapids, Mich.
CABLE PULLING — Underground cable pulling compound. Adam Cook's Sons, Inc., Linden, N. J.
CACTUS—Barbed wire. Bethlehem Steel Co., Bethlehem, Pa.
CACTUS—Door mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
CAD—Bolts, nuts, washers, clamps, etc. Standard Shop Equipment Co., Philadelphia, Pa.
CADOL—Liquid grinding compound. D. A. Stuart Oil Co., Chicago, Ill.
CALDWELL—Hose straps and pliers. W. D. Allen Mfg. Co., Chicago, Ill.
CALDWELL—Spiral conveyors, rotor lifts, car spotters, variable speed stoker drives, underfeed automatic stokers, speed reducer stock drives for conveyors and elevators, elevator buckets, bolts, boots and casings, automatic grain shovels, etc Link-Belt Co., Chicago, Ill.
CALIBESTOS — Asbestos metallic sheet packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
CALIFORNIA—Sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
CALLAHAN — Shut-off nozzles. Elkhart Brass Mfg. Co., Elkhart, Ind.
CALUMET—Machinery steels. Crucible Steel Co. of America, New York, N. Y.
CALYX—Core drills. Ingersoll-Rand Co., New York, N. Y.
CAMBELL—Nibbling machine. Andrew C. Campbell, Division of American Chain Co., Inc., Bridgeport, Conn.
CAMBRIA—Wire fence. Bethlehem Steel Co., Bethlehem, Pa.
CAMBRIA PERFECT—Barbed wire. Bethlehem Steel Co., Bethlehem, Pa.
CAMBRIA SPECIAL—Barbed wire. Bethlehem Steel Co., Bethlehem, Pa.
CAMERON—Pumps. Ingersoll-Rand Co., New York, N. Y.
CAMPBELL—Chain and wrenches. International Chain & Mfg. Co., York, Pa.
CAMPBELL—Cotter pins. American Chain Co., Inc., Bridgeport, Conn.
CAMPBELL-HAUSFELD — Fire hose equipment. The Campbell-Hausfeld Co., Harrison, Ohio.
CANDENS—Hot surface paint. Tnemec Co., Kansas City, Mo.
CANNON BALL—Door hangers. Starline, Inc., Harvard, Ill.
CAN'T BREAK 'EM—Tool handles. O. P. Link Handle Co., Salem, Ind.
CANTILEVER — Pipe chain wrenches. Heller Bros. Co., Newark, N. J.
CANTOL—Belt wax, etc. E. C. Atkins and Co., Indianapolis, Ind.
CANVAS BACK—Loom straps. E. H. Jacobs Manufacturing Co., Danielson, Conn.
CANYON—Chain tapes. The Lufkin Rule Co., Saginaw, Mich.
CAP—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
CAPITAL—Brooms and brushes. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
CAPITOL—Rubber coats. Goodall Rubber Co., Philadelphia, Pa.
CARBEX—Refractories. McLeod & Henry Co., Troy, N. Y.
CARBEX—Silicon carbide brick. General Refractories Co., Philadelphia, Pa.
CARBIC — Calcium, carbide and portable acetylene floodlights and generators. The Linde Air Products Co., Unit of Union Carbide and Carbon Corp., New York.
CARBO MAGNETO — Grinding wheels, knife sharpeners, etc. Goodrich Grinding Wheel Co., Chicago, Ill.
CARBO OXILITE—Grinding wheels. Goodrich Grinding Wheel Co., Chicago, Ill.
CARBON—Conveyor belting and hose. New York Belting & Packing Co., Passaic, N. J.
CARBONDALE — Refrigeration and air conditioning equipment. Carbondale Machine Corp., Harrison, N. J.
CARBONITE — Abrasive grains. General Abrasive Co., Inc., Niagara Falls, N. Y.
CARBONIZING COATING—Iron and steel paint. Vita-Var Corp., Newark, N. J.
CARBORITE — Silicon carbide wheels. Vitrified Wheel Co., Westfield, Mass.
CARBOWALT — Silicon carbide wheels. Waltham Grinding Wheel Co., Waltham, Mass.
CARDINAL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
CAREYSTONE — Asbestos shingles and sheathings. The Philip Carey Co., Lockland, Cincinnati, Ohio.
CARLSON—Pliers. The Noble & Westbrook Mfg. Co., East Hartford, Conn.
CAROGA—Alloy tool steel. Ludlum Steel Co., Watervliet, N. Y.
CAROLUS — Cutters. Carolus Manufacturing Co., Sterling, Ill.
CARROLL—Chain. The Carroll Chain Co., Columbus, Ohio.
CASCO—Leather belting and packings. Chas. A. Schieren Co., New York, N. Y.
CASE-HARDO—Case hardening compound. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
CASITE — Penetrating oil. J. R. Case Manufacturing Co., Jonesboro, Ark.
CASLER—Offset boring head. Westcott Chuck Co., Oneida, N. Y.
CAST-REFRACT — Castable refractory. Quigley Co., New York, N. Y.
CASTOROL—Belt dressing. A. W. Chesterton Co., Boston, Mass.
CAT—Forged steel elbows and fittings. Central Forging Co., Catawissa, Pa.
CATARACT—Hose. Goodall Rubber Co., Philadelphia, Pa.
CATAWISSA—Forged steel unions, union swing check valves, etc. The Central Forging Co., Catawissa, Pa.
CATLIN—Keyseaters. Chattanooga Machinery Co., Chattanooga, Tenn.
CAUSUL—Metal gate valves. The Lunkenheimer Co., Cincinnati, Ohio.

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CEE TEE CO.—Pliers. Crescent Tool Co., Jamestown, N. Y.
CELITE—Mineral filters. Johns-Manville, New York, N. Y.
CELFOR—Drills, reamers and countersinks. Clark Equipment Co., Buchanan, Mich.
CELORON—Gears, gear blanks and valve discs. Continental-Diamond Fibre Co., Newark, Del.
CENTAUR—Belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
CENTRAL—Alloy steel. Peter A. Frasse & Co., Inc., New York, N. Y.
CENTRIFUGAL—Leather belting. McLean Manufacturing Corp., New York, N. Y.
CENTRIFUGAL—Vibrating screens. Allis-Chalmers Manufacturing Co., West Allis, Wis.
CENTRIPAC — Packings and gaskets. Johns-Manville, New York.
CENTURY BATAVIA—Twine and lath-yarn. Whitlock Cordage Co., New York, N. Y.
CENTURY—Motors and fans. Century Electric Co., St. Louis, Mo.
CENTURY—Valves. H. Belfield Co., Philadelphia, Pa.
CEPECO—Chain. The Hodell Chain Co., Cleveland, Ohio.
CESCO—Boiler and condenser tube cleaners, packing, thermometers and drain pipe solvent. Chicago Engineer Supply Co., Chicago, Ill.
CESCO—Toe guards and goggles. Chicago Eye Shield Co., Chicago, Ill.
CESCOWELD — Welding glass. Chicago Eye Shield Co., Chicago, Ill.
CHAINGRIPS—Gear and wheel and pulley pullers. Armstrong-Bray & Co., Chicago, Ill.
CHALLENGE—Elevator belting. The Republic Rubber Co., Youngstown, Ohio.
CHALLENGE — Force pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
CHALLENGE—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
CHALLENGE — Packing. Home Rubber Co., Trenton, N. J.
CHALLENGE BRAND — Pipe nipples. Frick-Reid Supply Corp., N. S. Pittsburgh, Pa.
CHALLENGE JR.—Steel measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
CHALLENGER—Turn power, spur gear, gravity lowering chain hoists. Coffing Hoist Co., Danville, Ill.
CHAMP—Padlocks. Master Lock Co. Milwaukee, Wis.
CHAMPION — Automatic alcohol blow torches. B. Lenk Mfg. Co., Newton Lower Falls, Mass.
CHAMPION—Chain wrenches. Greene, Tweed & Co., New York, N. Y.
CHAMPION—Heating units. Vulcan Electric Co., Lynn, Mass.
CHAMPION—Hydraulic water pumps. The Bishop & Babcock Sales Co., Cleveland, O.
CHAMPION — Logging tools. American Logging Tool Co., Evart, Mich.
CHAMPION—Metal polishes. Matchless Metal Polish Co., Chicago, Ill.
CHAMPION—Spray nozzle. W. D. Allen Mfg Co., Chicago, Ill.
CHAMPION—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
CHAMPION — Post hole diggers. Iwan Brothers, South Bend, Ind.
CHAMPION HOLDERS—Steel stamp holders. Jas. H. Matthews & Co., Pittsburgh.
CHAMPION ROLLER DIE—Saw swages. E. G. Shortridge & Co., Kokomo, Ind.
CHARTER OAK—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
CHATTERTON — Insulating compounds. McGill Manufacturing Co., Valparaiso, Ind.
CHENEY—Hammers. Prentiss Vise Co., New York, N. Y.
CHERRY HEAT — Welding compound. Cortland Welding Compound Co., Cortland, N. Y.
CHESTER—Wrought iron and steel pipe, tubing and casing. South Chester Tube Co., Chester, Pa.
CHEX—Wall sealer. The Reardon Co., St. Louis, Mo.
CHICAGO — Anchoring devices. Chicago Expansion Bolt Co., Chicago, Ill.
CHICAGO—Belt hooks. Wm. E. Pratt Mfg. Co., Joliet, Ill.
CHICAGO — Cup and flange leathers, gears and pinions, blanks, mallets, hammers and mauls and leather belt cement. The Chicago Rawhide Mfg. Co., Chicago, Ill.
CHICAGO—Injectors, ejectors, lubricators and water gauges. Ohio Injector Co., Wadsworth, Ohio.
CHICAGO—Mounted grinding wheels. Chicago Wheel & Mfg. Co., Chicago, Ill.
CHICAGO—Pillow blocks, flexible couplings, sheaves, etc. Chicago Die Casting Mfg. Co., Chicago, Ill.
CHICAGO—Pipe benders. Gustave Lidseen Inc., Chicago, Ill.
CHICAGO—Rail benders. Tallman Manufacturing Co., Shelbyville, Ill.
CHICAGO—Wire grips. M. Klein & Sons, Chicago, Ill.
CHICAGO GOOSE NECK—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
CHICAGO LINE—Hangers, pillow blocks, collars, etc. Chicago Pulley & Shafting Co., Chicago, Ill.
CHIEF — Socket wrenches. Blackhawk Mfg. Co., Milwaukee, Wis.
CHILDS—Fire extinguishers and chemical engines. American-LaFrance & Foamite Corp., Elmira, N. Y.
CHIP CHASER—Die stocks. The Oster Mfg. Co., Cleveland, Ohio.
CHOICE—Leather belting. O'Meara Belting Co., Omaha, Neb.
CHROMAL—Hack saw blades. Henry Disston & Sons, Inc., Philadelphia, Pa.
CHROMBITS—Bits or teeth for inserted point saws. The Ohlen-Bishop Co., Columbus, Ohio.
CHROME — Leather packing. Michigan Leather Packings Co., Inc., Detroit, Mich.
CHROMEWELD 4-6—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
CHROMIX — Plastic fire brick. Quigley Co., Inc., New York, N. Y.
CHROMO—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
CHROMSAWS—Circular saws. The Ohlen-Bishop Co., Columbus, Ohio.
CHROMSHANKS — Shanks for inserted point saws. The Ohlen-Bishop Co., Columbus, Ohio.
CID—Shallow and deep well water system pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
CINCH—Expansion bolts and anchors. National Lead Co., New York, N. Y.
CINCH—Set screw and pin locks. American Nut and Bolt Fastener Co., Pittsburgh, Pa.
CINCH STEEL CEMENT—Welding compound. The W. R. Chapin Co., Indianapolis, Ind.
CINCH-WELD — Machine knives. E. C. Atkins and Co., Indianapolis, Ind.
CINCINNATI (THE) — Electric drills, screw drivers, nut setters, tappers, grinders, buffers and high speed cut off machines. The Cincinnati Electrical Tool Co., Cincinnati, Ohio.
CINCINNATI TRUSS—Step ladder. The Rich Pump and Ladder Co., Cincinnati, O.
CINCINNATUS—Transmission belting and hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
CINO—Iron body gate valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
CIRCLE—Belting. Hewitt Rubber Corp., Buffalo, N. Y.
CIRCLE A—Leather belting. E. P. Alexander & Son, Inc., Clifton Heights, Pa.
CLARK — Barrows, carriages and carts, trucks, etc. All Steel Welded Truck Corp., Rockford, Ill.
CLARK—Bolts, nuts, screws and rivets. Clark Bros. Bolt Co., Milldale, Conn.
CLARK'S—Rope fire escape. Rope Fire Escape Co., Philadelphia, Pa.
CLAYTON MARK — Wrought steel pipe, water well supplies, valves, strainers, mechanical tubing, etc. Clayton Mark & Co., Chicago, Ill.
CLE-FORGE—Drills. The Cleveland Twist Drill Co., Cleveland, Ohio.
CLEAN-AIR—Exhaust fan. Victor Electric Products, Inc., Cincinnati, Ohio.
CLEAN WATER—Intake screens. Link-Belt Co., Chicago, Ill.
CLEANCUT GUIDE—Hand metal cutting machine. Jos. C. Paulus & Co., Philadelphia, Pa.
CLEANSER & STUFFER—Belt dressing and cleaner. F. Raniville Co., Grand Rapids, Mich.
CLEANWELL — Welding and brazing fluxes. K-G Welding and Cutting Co., Inc., New York, N. Y.
CLEANZUM—Hand soap. The White & Bagley Co., Worcester, Mass.
CLEMENTS-CADILLAC — Portable electric blowers. Clements Mfg. Co., Chicago, Ill.
CLEO—Sheet packing. The Mechanical Rubber Co., Passaic, N. J.
CLERMONT—Marine oakum. The Hooven & Allison Co., Xenia, Ohio.
CLEVELAND—Adjustable H. S. Reamers. The Cleveland Twist Drill Co., Cleveland, Ohio.
CLEVELAND — Carriage and machine bolts. The Lamson & Sessions Co., Cleveland, Ohio.
CLEVELAND—Conveyor belting, suction hose and compressed asbestos sheet packing. The Mechanical Rubber Co., Passaic, N. J.
CLEVELAND—Friction clutches. Western Engineering & Mfg. Co., Chicago, Ill.
CLEVELAND — Pump chain and pump buckets. The Hodell Chain Co., Cleveland, Ohio.
CLEVELAND—Tackle blocks. The Upson-Walton Co., Cleveland, Ohio.
CLEVELAND—Tacks and nails. The Bishop & Babcock Sales Co., Cleveland, Ohio.
CLEVELAND FLAMING TORCHES — Road torches. Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
CLEVELAND TYPE—Line shaft bearings. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
CLEVER-CUTTER—Electric butcher saw. Wells Manufacturing Corp., Three Rivers, Mich.
CLIFTON—Conveyor belting and hose. New York Belting & Packing Co., Passaic, N. J.
CLIMAX—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, Ohio.
CLIMAX — Core wire straighteners. Worthington Pump and Machinery Corp., Harrison, N. J.
CLIMAX—Expansion shields. The Brohard Co., Philadelphia, Pa.
CLIMAX—Grease cups. American Injector Co., Detroit, Mich.
CLIMAX—High pressure pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
CLIMAX—Malleable ground joint unions. Thos. Devlin Mfg. Co., Burlington, N. J.
CLIMAX—Scoop trucks. Lansing Co., Lansing, Mich.
CLIMAX—Solid cotton belting. Fenwick-Reddaway Mfg. Co., Newark, N. J.
CLIMAX—Steel belt lacing.—Manufacturers' Belt Hook Co., Chicago, Ill.
CLIMAX—Welding compound. Cortland Welding Compound Co., Cortland, N. Y.
CLIMAX ALLOY—Staybolts, etc. Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
CLINCHING—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.
CLING SURFACE—Belt dressing. Cling-Surface Co., Buffalo, N. Y.
CLINGSTONE—Leather belting. Bonner & Barnewall, Inc., New York, N. Y.
CLINTON—Poultry nettings, hardware, cloth and electrically welded fabrics. Wickwire Spencer Steel Co., New York, N. Y.
CLINTON—Reinforcing fabric and wire lath. Wickwire Spencer Steel Co., New York, N. Y.
CLIPPER—Belting, barrel spray hose, packing and matting. Diamond Mechanical Goods Division of The B. F. Goodrich Rubber Co., Akron, Ohio.
CLIPPER—Manila rope. American Manufacturing Co., Brooklyn, N. Y.
CLIPPER NAVY—Marine oakum. American Manufacturing Co., Brooklyn, N. Y.
CLOSED BACK—Shovels. The Wood Shovel and Tool Co., Piqua, Ohio.
CLOTHFLEX WHEEL—Polishing wheels. Divine Brothers Co., Utica, N. Y.
COAL BLUFF—Coal shovels and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
COASTER — Apparatus sirens. Federal Electric Co., Chicago, Ill.
COBBS—Rod packing. New York Belting & Packing Co., Passaic, N. J.
COCHECO—Leather belting and rawhide lace leather. I. B. Williams & Sons, Dover, N. H.
COES—Wrenches. Bemis & Call Co., Springfield, Mass.
COFFING—Hoists and guy clamps. Coffing Hoist Co., Danville, Ill.
COGASA—Gaskets and rod packings. Rhopac Products Corp., Chicago, Ill.
COIL—Brush and scraper combined. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
COIL KNOT—Wire sections and wheels. The Osborn Manufacturing Co., Cleveland, Ohio.
COIN—Bronze grease cups. The Wm. Powell Co., Cincinnati, Ohio.
COLE—Grip nuts. The Robinson Tool Works, Inc., Waterbury, Conn.
COLD-FORGED—Wing and cap nuts and thumb screws. Parker-Kalon Corp., New York, N. Y.
COLEMAN'S—Cleaners, rods, pumps, etc. Allan J. Coleman, Chicago, Ill.
COLLS—Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
COLONEL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
COLONIAL—Chopping axes. Man Edge Tool Co., Lewistown, Pa.
COLONIAL OAK—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
COLORADO—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
COLORTOP—Plug fuses. Trico Fuse Mfg. Co., Milwaukee, Wis.
COLT'S—Woodworking clamps. Batavia Clamp Co., Inc., Batavia, N. Y.
COLUMBIA—Brass grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
COLUMBIA — Lubricators. Consolidated Brass Co., Detroit, Mich.
COLUMBIAN—Clamps and vises. The Columbian Vise & Mfg. Co., Cleveland, Ohio.

COLUMBUS — Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
COLVIN—Rawhide hammers. Greene, Tweed & Co., New York, N. Y.
COLVULC—Liquid and plastic rubbers. Manson Glover, Stoughton, Mass.
COMBER-WATERPROOF—Leather belting. Geo. Rahmann & Co., New York, N. Y.
COMBI—Combination portable electric drill and grinder. Wodack Electric Tool Corp., Chicago, Ill.
COMBINATION—Sectional piston packing. A. W. Chesterton Co., Boston, Mass.
COMBINATION—Steam traps (Float and Thermostatic). Wright-Austin Co., Detroit, Mich.
COMBINATION ANCHOR—Leather belting. Jos. C. Paulus & Co., Philadelphia, Pa.
COMET—Garden hose reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
COMPO—Protective caps, dust, mist and paint respirators. Mine Safety Appliances Co., Pittsburgh, Pa.
COMMANDER—Belting and hose. The B. F. Goodrich Co., Akron, Ohio.
COMMERCIAL—Ball bearings. Schatz Mfg. Co., Poughkeepsie, N. Y.
COMMERCIAL—Phosphor bronze bars. Buckeye Brass & Mfg. Co., Cleveland, O.
COMPACT—Bolts, clippers and nut splitters. H. K. Porter, Inc., Everett, Mass.
COMPASS—Cord belting. The Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
COMPENSATED BELT — Transmission belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
COMPETITION—Chicago Expansion Bolt Co., Chicago, Ill.
COMPETITOR—Friction clutches. Kinney Manufacturing Co., Boston, Mass.
COMPO—Self-lubricating bearings. Bound Brook Oilless Bearing Co., Bound Brook, N. J.
COMPOSITE—Rubber hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
COMPOUND LEVER—Snips and bench shears. Bartlett Manufacturing Co., Detroit, Mich.
COMPRESS WHEEL (THE)—Polishing wheels. Divine Brothers Co., Utica, N. Y.
COMPRESSOR—Hose. Goodall Rubber Co., Philadelphia, Pa.
CONCAVE—Woodworking cutters. S. R. M. Orum, Inc., Philadelphia, Pa.
CONCORD—Leather belting. Page Belting Co., Concord, N. H.
CONCRETE BUSHER — Pneumatic tool. The Dallett Co., Philadelphia, Pa.
CONCREWALTUM — Paint. Vita-Var Corp., Newark, N. J.
CONDEX—Underground cable. Simplex Wire & Cable Co., Boston, Mass.
CONDOR—Rubber belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
CONDOR—Tool handles. American Handle Co., Jonesboro, Ark.
CONGO—Manila rope. John Rauschenberger Co., Milwaukee, Wis.
CONGO—Steam hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
CONGO—Suction hose. New York Belting & Packing Co., Passaic, N. J.
CONIFLO—Pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
CONOVALVE—Automatic control valves. The Fisher Governor Co., Marshalltown, Iowa.
CONSERVO — Belting. Hewitt Rubber Corp., Buffalo, N. Y.
CONSOLIDATED AMERICAN — Safety and relief valves. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
CONSTANT LEVEL—Oilers. Speedway Mfg. Co., Cicero, Ill.
CONSTRUCTOR—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
CONTACT POINT—Coil files. Nicholson File Co., Providence, R. I.
CONTRACTOR—Extension ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
CONTRACTORS—Suction hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
CONVEYOR WEIGHTOMETER — Conveyor scales. Merrick Scale Mfg. Co., Passaic, N. J.
CONWAX—Canvas belting. Gandy Belting Co., Grand Rapids, Mich.
COOKE MICRO—Nuts, slotted. Blatchford Corp., Chicago, Ill.
COOKSON—Steam and oil separators and steam traps. The D. T. Williams Valve Co., Cincinnati, Ohio.
COOL SPOT—Desk fans. Signal Electric Mfg. Co., Menominee, Mich.
COOLING CUTTING — Oil. Armstrong Mfg. Co., Bridgeport, Conn.
COOLKUTTER—Tool grinders. Western Hdwe. Mfg. Co., Milwaukee, Wis.
COON—Pipe joint cement. Hinds and Coon Co., Boston, Mass.
COPALOY—Babbitt. Michigan Smelting & Refining Co., Detroit, Mich.
COPPER HARD—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
COPPER KING—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
COPPER QUEEN — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
COPPEROID—Steel sheets. Youngstown Sheet and Tube Co., Youngstown, Ohio.
COPPERSTEEL—Bins. R. H. Beaumont Co., Philadelphia, Pa.
COP-R-LOY—Metalware, wire and wire products. Wheeling Corrugating Co., Wheeling, W. Va.
CORBESTOS—Asbestos sheet with metal core. Victor Mfg. & Gasket Co., Chicago, Ill.
CORDEAU BICKFORD—Detonating fuse. Hercules Powder Co., Inc., Wilmington, Del.
COREX—Silicon carbide grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
CORINTH—Straight carbon steel. Ludlum Steel Co., Watervliet, N. Y.
CORKER—Hog beater belt. The Mechanical Rubber Co., Passaic, N. J.
CORKLASTIC—Cork gaskets. Armstrong Cork Products Co., Lancaster, Pa.
CORLEY—Saw mill machinery; saw-bits and shanks. Corley Mfg. Co., Chattanooga, Tenn.
CORLISS VALVE—Steam traps. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
CORNING—Gauge glasses. Corning Glass Works, Corning, N. Y.
COROCO—Rope and twine. Columbian Rope Co., Auburn, N. Y.
CORPORATION STYLE—Push Brooms. The Osborn Manufacturing Co., Cleveland, Ohio.
CORRY—Check valves. Trill Indicator Co., Corry, Pa.
CORSICAN—Hose. Goodall Rubber Co., Philadelphia, Pa.
COUEMAUGH—Barbed wire. Bethlehem Steel Co., Bethlehem, Pa.
COUNTOMETER—Counting machines. Durant Manufacturing Co., Milwaukee, Wis.
CRACKERJACK—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
CRACKPROOF—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
CRESCENT—Bronze globe valves. The Wm. Powell Co., Cincinnati, Ohio.
CRESCENT—Carbon tool steels and drill rods. Crucible Steel Co. of America, New York.
CRESCENT—Drinking fountain equipment. Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
CRESCENT—Emery wheel dresser cutter. Curtin-Hebert Co., Inc., Gloversville, N. Y.
CRESCENT—Gauge and try cocks. Wright-Austin Co., Detroit, Mich.
CRESCENT—Grinders and polishing machines. Cutter Machine Co., St. Louis, Mo.
CRESCENT—Hose, mats and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
CRESCENT—Portable lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
CRESCENT—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
CRESCENT — Tape-rules. The Lufkin Rule Co., Saginaw, Mich.
CRESCENT—Welding and tempering compound. Anti-Borax Compound Co., Fort Wayne, Ind.
CRESCENT—Wire rope. American Cable Co., Inc., Wilkes Barre, Pa.
CRESCENT CHATTERTON—Compounds. McGill Mfg. Co., Valparaiso, Ind.
CRESCENT GROUND — Cross-cut saws. Simonds Saw and Steel Co., Fitchburg, Mass.
CRESTO—Kalsomine. The Reardon Co., St. Louis, Mo.
CRICKET—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
CRISS-CROSS — Boiler tube cleaner. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
CROCCITE—Rod packing. New York Belting & Packing Co., Passaic, N. J.
CROSBY—Wire rope clips. American Hoist & Derrick Co., St. Paul, Minn.
CROSS—Oil filters. The Burt Manufacturing Co., Akron, Ohio.
CROTON—Leather belting and cement. Baldwin Belting & Leather Co., Inc., New York, N. Y.
CROW—Alloy tool steel. Ludlum Steel Co., Watervliet, N. Y.
CROW—Dry pipe tapping machines. Hays Manufacturing Co., Erie, Pa.
CROWN—Dredge chain. The McKay Co., Pittsburgh, Pa.
CROWN—Leather belting. Page Belting Co., Concord, N. H.
CROWN — Paint spray equipment, etc. Simplex Spray Equipment Co., Chicago, Ill.
CROWN—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
CROWN-WILSON—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.
CRUNDUMSAND — Granular refractory. Keystone Refractories Co., New York, N. Y.
CRUSCA—Drill steels. Crucible Steel Co. of America, New York, N. Y.
CRYSTAL BAY—Emery cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
CRYSTAL FALLS—Wiping cloths and waste. Cook & Riley, Inc., Chicago, Ill.
CRYSTOLON—Bench stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
CRYSTOLON—Grinding wheels. Norton Co., Worcester, Mass.
CRYSTOLON-SILICON CARBIDE — Sharpening stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
CUB—Boiler scaler. The Dallett Co., Philadelphia, Pa.
CUB—Drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
CUB—Portable loaders. Link-Belt Co., Chicago, Ill.
CUB—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
CUMSCO—Shafts. Cumberland Steel Co., Cumberland, Md.
CUPID—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
CUPLEX STEEL HORSES—Steel horses. Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
CURROLA—Oils, greases, packings, etc. Curry Brothers Oil Co., Boston, Mass.
CURRYBESTOS — Roof coating. Curry Brothers Oil Co., Boston, Mass.
CURTIS—Air compressors, hoists, cranes, saws, etc. Curtis Pneumatic Machinery Co., St. Louis, Mo.
CURTIS—Universal joints. Boston Gear Works, Inc., North Quincy, Mass.
CURVEX—Milling cutters. Pratt & Whitney Co., Hartford, Conn.
CUTAMATIC—Cutting machine. Andrew C. Campbell, Division of American Chain Co., Inc., Bridgeport, Conn.
CUTNO—Packing. Greene, Tweed & Co., New York, N. Y.
CYCLONE—Exhaust heads. Wright-Austin Co., Detroit, Mich.
CYCLONE — Hand and electric chain hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
CYCLONE — Lubricators. Essex Brass Corp., Detroit, Mich.
CYCLOPS—Transmission belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
CYMULLITE—Heavy duty super-refractories. Quigley Co., Inc., New York.

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DC—Iron dredge chain. The Carroll Chain Co., Columbus, Ohio.
D-E—Machine knives and shear blades. Detroit Edge Tool Works, Detroit, Mich.
DH-I—Ball bearings. Dodge Manufacturing Corp., Mishawaka, Ind.
D-LITE—Lanterns. R. E. Dietz Co., New York, N. Y.
D M T—Nail hammers. David Maydole Tool Corp., Norwich, N. Y.
DS—Type take-ups. Link-Belt Co., Chicago, Ill.
D-PORTABLE—Suction hose. New York Belting & Packing Co., Passaic, N. J.
D-V—V-belt drives and motorized variable speed transmissions. Dodge Manufacturing Corp., Mishawaka, Ind.
DAGGETT — Loose pulleys, friction clutches and hanger bearings. Chicago Pulley & Shafting Co., Chicago, Ill.
DAHLIA—Grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DAISY — Gas tapping machines. Hays Manufacturing Co., Erie, Pa.
DAISY—Lock grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DAKOTA—Grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DALBO—Hose couplings. The Dallett Co., Philadelphia, Pa.
DALLOYL—Pneumatic tool oil. The Dallett Co., Philadelphia, Pa.
DALWELD—Detachable cable connectors. The Dallett Co., Philadelphia, Pa.
DAMIT—Joint-sealing compound. Quigley Co., Inc., New York, N. Y.
DANDY—Automatic compression grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DANDY—Box scrapers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
DANDY—Oiler assortments. Eagle Manufacturing Co., Wellsburgh, W. Va.
DANDY—Sand suction hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
DANDY NEW MULESKIN — Leather aprons. California Tanning Co., St. Louis, Mo.

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DANDY PATTERN—Horse brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
DANIEL BOONE—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
DAR-A-LOY—Hard bronze metal. Darling Valve & Mfg. Co., Williamsport, Pa.
DARB—Geared and plain trolleys. Ford Chain Block Co., Philadelphia, Pa.
DARCOID—Packing and gaskets. The Darcoid Co., Inc., New York, N. Y.
DARCOVA—Pump valve cups. Darling Valve & Mfg. Co., Williamsport, Pa.
DARDELET—Rivet bolts. Rockford Screw Products Co., Rockford, Ill.
DARNELL—Truck casters, wheels, etc. Darnell Corp., Long Beach, Calif.
DART—Union pipe fittings and flanges. E. M. Dart Mfg. Co., Providence, R. I.
DARVAL — Semi-steel metal. Darling Valve & Mfg. Co., Williamsport, Pa.
DASCO—Quenching and tempering oils. D. A. Stuart Oil Co., Chicago, Ill.
DAVENPORT—Oil engines. Micro-Westco Inc., Bettendorf, Iowa.
DAY-STEEL PULLEYS—Single and multiple pressed steel and groove pulleys. The Dayton Rubber Manufacturing Co., Dayton, Ohio.
DAYCOIL—V-belts. The Dayton Rubber Mfg. Co., Dayton, Ohio.
DAYTON COG-BELT—V-belts and drives. The Dayton Rubber Manufacturing Co., Dayton, Ohio.
DE LUXE—Fire hose cabinets. Wirt & Knox Mfg. Co., Philadelphia, Pa.
DE-PEND-ON—Fire extinguishers. Giant Mfg. Co., Council Bluffs, Iowa.
DEANE — Power pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
DEEPWELL—Chain. Chain Belt Co., Milwaukee, Wis.
DEEPWELL—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
DEFENDER — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
DEFIANCE — Belts, hose, packing, mats, valves and cement. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DEFIANCE—Lanterns. Embury Manufacturing Co., Warsaw, N. Y.
DEFLECTO—Industrial belting. The Hettrick Mfg. Co., Toledo, Ohio.
DEGRACO—Paints. Detroit Graphite Co., Detroit, Mich.
DELAWARE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
DELHI—Hose, belting, packing, matting and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
DELTA—Cranes, trolleys, etc. Newhall Chain Forge & Iron Co., New York, N. Y.
DELTA—Hose. New York Belting & Packing Co., Passaic, N. J.
DELUGE — Suction and bilge pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
DELVA—Water hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
DEPENDABLE—Belting and leather products. Himmelein & Bailey, Inc., Camden, N. J.
DEPENDABLE—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
DEPENDABLE—Tool handles. O. P. Link Handle Co., Salem, Ind.
DEPENDABLE WOVEN—Brake linings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
DERBY—Plain steel grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DERRICK—Steel measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
DESMOND—Injectors and ejectors. Desmond-Stephan Mfg. Co., Urbana, Ohio.
DESMOND HUNTINGTON — Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
DESOLVO—Drain pipe and toilet bowl cleaners and soot eradicators. Desolvo Manufacturing Co., Pittsburgh, Pa.
DETERGINE—Detergent. Duryea Manufacturing Co., Bayonne, N. J.
DETROIT—Return trap. Nason Manufacturing Co., New York, N. Y.
DEWARD—Die steel. Ludlum Steel Co., Watervliet, N. Y.
DEXTER—Heat valve. The Swartwout Co., Cleveland, Ohio.
DEXTRO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
DI-BILT—Wire wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
DI-CO—Rotary driller's hose and mats. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DI-EN-KEY—Expansion shields. Diamond Expansion Bolt Co., Inc., Garwood, N. J.
DIABLO—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
DIACORD—Flat cord belts. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DIAMO—CARBO—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
DIAMOND—Cast brass grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DIAMOND—Crushed steel abrasive. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
DIAMOND—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
DIAMOND—Expansion bolts, etc. Newhall Chain Forge & Iron Co., New York.
DIAMOND — Fibre receptacles, sheets, rods, tubes, washers, gears, etc. Continental-Diamond Fibre Co., Newark, Del.
DIAMOND—Mechanical rubber goods, V-belt sheaves and belt dressing. Diamond Mechanical Goods Division of the B. F. Goodrich Co., Akron, Ohio.
DIAMOND—Picker loops. E. H. Jacobs Manufacturing Co., Danielson, Conn.
DIAMOND A—Brass unions. Rhode Island Fittings Co., Hillsgrove, R. I.
DIAMOND D — Safety disc friction clutches. Dodge Manufacturing Corp., Mishawaka, Ind.
DIAMOND DISC—Respirator masks for dust protection. Hygeia Respirator Co., New York, N. Y.
DIAMOND FIBRE—Boxes, cans, trucks, washers, etc. Continental-Diamond Fibre Co., Newark, Del.
DIAMOND G—Bronze bushings. E. A. Williams & Son, Inc., Jersey City, N. J.
DIAMOND-H—Fire clay brick. General Refractories Co., Philadelphia, Pa.
DIAMOND JO — High temperature cements. A. P. Green Fire Brick Co., Mexico, Mo.
DIAMOND N—Loading chain, etc. Newhall Chain Forge & Iron Co., New York.
DIANA—Stamped brass grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DICKBELT — Transmission, conveying and elevating belting. R. & J. Dick Co., Inc., Passaic, N. J.
DICKROPE—V-belt drives and V-belts. R. & J. Dick Co., Inc., Passaic, N. J.
DICKVALVES—Balata pump valves. R. & J. Dick Co., Inc., Passaic, N. J.
DICOWHITE—Service station hose. Diamond Mechanical Goods, Division of The B. F. Goodrich Co., Akron, Ohio.
DIESEL MARINE—Babbitt. United American Metals Corp., Brooklyn, N. Y.
DIMO-GRIT — Grinding wheels. Luther Grinder & Tool Co., Milwaukee, Wis.
DINAMO—Bearing metal. Magnolia Metal Co., Elizabeth, N. J.
DIPLOMA—Automatic grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DIRUBCO—Belts and hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DISC CENTER—Wire sections and wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
DISK—Friction clutch. Link-Belt Co., Chicago, Ill.
DISPLAYRITE—Oil carrier sets. Products Manufacturing Co., Milwaukee, Wis.
DIXIE—Automatic grease cups and lawn sprinklers. W. D. Allen Mfg. Co., Chicago, Ill.
DIXIE — Leather belting. Chas. A. Schieren Co., New York, N. Y.
DIXIE—Packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
DIXIE—Stamped brass grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DIXIE — Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
DIXON—Hose couplings. Dixon Valve & Coupling Co., Philadelphia, Pa.
DIXON'S—Graphite, grease, paint, belt dressing, etc. Joseph Dixon Crucible Co., Jersey City, N. J.
DIXSPAR—Varnishes. Joseph Dixon Crucible Co., Jersey City, N. J.
DO-ALL—Combination portable electric hammer and drill. Wodack Electric Tool Corp., Chicago, Ill.
DOAN—Back fillers. The General Wheelbarrow Co., Cleveland, Ohio.
DOBBIE—Derricks, winches, hand powers, etc. Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
DOEHLER-BOSTON—Gears. Boston Gear Works, Inc., North Quincy, Mass.
DODGE—Power transmission, machinery and material handling equipment. Dodge Manufacturing Corp., Mishawaka, Ind.
DOGWOOD—Belting. Hewitt Rubber Corp., Buffalo, N. Y.
DOLLAR—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
DOLPHIN—Leather belting and cup leathers. H. N. Cook Belting Co., San Francisco, Calif.
DOMESTIC MAID—Mops. Sullivan Brush & Mop Co., Terre Haute, Ind.
DOMINATOR—Hose, belting and packing. Rhonac Products Corp., Chicago, Ill.
DOMINION—Rod packing. The Darcoid Co., Inc., New York, N. Y.
DOMINO—Crank pin grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DOMINO—Hose and rod packing. The Darcoid Co., Inc., New York, N. Y.
DON'T FEAR—Smoke respirators. Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
DOUBLE CRIMP—Wire cloth. Newark Wire Cloth Co., Newark, N. J.
DOUBLE CROSS—Transmission belting. The Republic Rubber Co., Youngstown, Ohio.
DOUBLE DIAMOND—Hose. New York Belting & Packing Co., Passaic, N. J.
DOUBLE DIAMOND—Thermometers and testing instruments. H-B Instrument Co., Inc., Philadelphia, Pa.
DOUBLE-DUTY—Motors, lathes and drill presses. Delta Manufacturing Co., Milwaukee, Wis.
DOUBLE-DUTY—Sprocket wheels. Link-Belt Co., Chicago, Ill.
DOUBLE GRIP — Belt dressing and cement. Jerry Bros. Belting Co., Richmond, Va.
DOUBLE GRIP—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
DOUBLE HEX—Wrenches. Stevens Walden, Inc., Worcester, Mass.
DOUBLE JAW—Chucks and attachments. Procunier Safety Chuck Co., Chicago, Ill.
DOUBLE NEEDLE — Fire pots, blow torches, etc. Clayton & Lambert Mfg. Co., Detroit, Mich.
DOUBLE-SIMPLEX—Flexible joint pipe. American Cast Iron Pipe Co., Birmingham, Ala.
DOUBLEFLEX—Hack saw blades. Henry Disston & Sons, Inc., Philadelphia, Pa.
DRAGON—Belting and hose. New York Belting & Packing Co., Passaic, N. J.
DRAIN-DRI—Pumps. Yeomans Brothers Co., Chicago, Ill.
DRAINATOR—Steam traps. The Coe Manufacturing Co., Painesville, Ohio.
DRAWSOL—Deep drawing compound. D. A. Stuart Oil Co., Chicago, Ill.
DREADNAUGHT—Anti-skid chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
DREADNAUGHT—Hose, belting, packing and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
DREADNAUGHT—Blow torches and furnaces. P. Wall Mfg. Supply Co., Pittsburgh, Pa.
DREADNAUGHT — Trucks. Fibre Specialty Mfg. Co., Kennett Square, Pa.
DREDNAUT—Goggles and lenses. The Safety Equipment Service Co., Cleveland, Ohio.
DREDNAUT—Wire rope, clips and sockets. The Upson-Walton Co., Cleveland, Ohio.
DRESSER—Clamps, couplings, flexible joints, etc. S. R. Dresser Mfg. Co., Bradford, Pa.
DREW—Braided wire rope slings. Macwhyte Co., Kenosha, Wis.
DRILL-INDEX—Case for drills. Huot Mfg. Co., St. Paul, Minn.
DRIVER—Saws, lathes, grinding, buffing, drilling, woodworking and flexible shaft machines, etc. Walker-Turner Co., Inc., Plainfield, N. J.
DRONANCE—Brass and bronze bushings. Prier Brass Mfg. Co., Kansas City, Mo.
DRYVINS—Hammer drive anchors. Star Expansion Bolt Co., New York, N. Y.
DU-MORE—Files and rasps. Carson-Newton Co., Newark, N. J.
DUCHESS—Automatic compression grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DUDGEON—Roller tube expanders and jacks. Richard Dudgeon, Inc., New York, N. Y.
DUDGEON UNIVERSAL—Hydraulic jacks. Richard Dudgeon, Inc., New York, N. Y.
DUFACE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
DUFF—Jacks. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
DUKE—Grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DUKE—Lubricators. Essex Brass Corp., Detroit, Mich.
DUMORE — Grinders, drilling machines, motors, hedge trimmers, etc. The Dumore Co., Racine, Wis.
DUNDEE—C. R. L. Mill hose and sheet packings. New York Belting & Packing Co., Passaic, N. J.
DUNN—Trench braces. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
DUOREX-BOX—Box wrenches. J. H. Williams & Co., New York, N. Y.
DUO-TAN — Leather belting. Whiting Leather & Belting Co., Long Island City, N. Y.
DUO-WEAR—Tire chains. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
DUOMATIC—Lathes. The Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.
DUPLEX — Bench and floor grinders. Walls Sales Corp., New York, N. Y.
DUPLEX—Boiler water feeders. Nason Manufacturing Co., New York, N. Y.

DUPLEX—Detachable bits and alloy forging steel. Crucible Steel Co. of America, New York, N. Y.
DUPLEX—Feed and overflow valve for oil burners. Efficiency Engineering Co., Boston, Mass.
DUPLEX—Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
DUPLEX—Pop valves. The Lunkenheimer Co., Cincinnati, Ohio.
DUPLEX—Pumps and water systems. The Deming Co., Salem, Ohio.
DUPLEX AKRON — Copper gaskets. Akron Metallic Gasket Co., Akron, Ohio.
DUPLEX UPRIGHT — Vertical power pump. Dean Brothers Co., Indianapolis, Ind.
DURA-BILT — Wire wheel and Tampico wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
DURA-STIX—Firebrick cement. Keystone Refractories Co., New York, N. Y.
DURABLE—Duplex steam pumps. Dean Brothers Co., Indianapolis, Ind.
DURAC — Hydrometers. H-B Instrument Co., Inc., Philadelphia, Pa.
DURACO — Asbestos packings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
DURAFLEX—Hack saw blades. Henry Disston & Sons, Inc., Philadelphia, Pa.
DURANT—Insulated underground pipe. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
DUREX—Step ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
DURCO—Paints, varnish and turpentine. Duryea Manufacturing Co., New York.
DURIFLEX — Boiler front cement and wall covering. The Wills Products Co., New York, N. Y.
DURITE—Sandpaper, cloth and combination. Behr-Manning Corp., Troy, N. Y.
DURO—Blow-off valves. The Lunkenheimer Co., Cincinnati, Ohio.
DURO — Packings and gaskets. Johns-Manville, New York, N. Y.
DURO BRACE TEXSTEEL — Sheaves. Allis-Chalmers Manufacturing Co., West Allis, Wis.
DURO-FERRIC-KOTE — Paint. Otley Paint Mfg. Co., Chicago, Ill.
DUROCEL—Insulating brick and powders. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
DUROIL—Hose. Hewitt Rubber Corp., Buffalo, N. Y.
DUROIL—Motor oil. The Franklin Oil & Gas Co., Bedford, Ohio.
DUROMITE—Bronze alloy for valve trimming. The Fisher Governor Co., Marshalltown, Iowa.
DUROTRED—Matting. The B. F. Goodrich Co., Cleveland, Ohio.
DURUNDUM—Sandpaper. Behr-Manning Corp., Troy, N. Y.
DUSTITE—Gates. R. H. Beaumont Co., Philadelphia, Pa.
DUTCH BOY—White and red lead, linseed oil, babbitt, solder and lead pipe. National Lead Co., New York, N. Y.
DUX — Anti-friction metal. Magnolia Metal Co., Elizabeth, N. J.
DUXBAK—Leather belting and packings and belt cement. Chas. A. Schieren Co., New York, N. Y.
DUXBAK PLANER—Leather planer belting. Chas. A. Schieren Co., New York.
DWARF—Lock grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DYNAMITE—Armored rubber steam hose. Mulconroy Company, Philadelphia, Pa.
DYNAMO—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
DYNAMO—Belts. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

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EB ALLOY—Hot work steel. Ludlum Steel Co., Watervliet, N. Y.
EWC—Trailers. Electric Wheel Co., Quincy, Ill.
E-Z—Bolt anchors. The Kempton Manufacturing Corp., New York, N. Y.
E-Z—Welding compound. Anti-Borax Compound Co., Fort Wayne, Ind.
E.Z.—Wire strippers. Ideal Commutator Dresser Co., Sycamore, Ill.
E. Z. GRIP—Brake lining. Burrell Belting Co., Chicago, Ill.
EAGLE—Files and rasps. Nicholson File Co., Providence, R. I.
EAGLE—Leather belting. Chas. A. Schieren Co., New York, N. Y.
EAGLE — Oilers. Eagle Manufacturing Co., Wellsburg, W. Va.
EAGLE—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
EAGLE—Twisted jute packing. American Manufacturing Co., Brooklyn, N. Y.
EAGLE — Woodworking saws. Corley Mfg. Co., Chattanooga, Tenn.
EAGLE ACE—Hose. New York Belting & Packing Co., Passaic, N. J.
EARLE—Cut gears. The Earle Gear & Machine Co., Philadelphia, Pa.
EASTERN GEM—Ladders. Michigan Ladder Co., Ypsilanti, Mich.
EASTON—Solid woven cotton belt. Victor Balata & Textile Belting Co., New York.
EASY—Car movers. The Stafford Co., Chicago, Ill.
EASY FLOW—Brazing alloy. Handy & Harman, New York, N. Y.
EBONITE—Brake lining. L. J. Miley Co., Inc., Chicago, Ill.
EBONY—Transmission and conveyor belting. Burrell Belting Co., Chicago, Ill.
ECLIPSE—Fire hose racks and reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
ECLIPSE—Machinists' vises. The Charles Parker Co., Meriden, Conn.
ECLIPSE—Smoke and combustion indicators. T. W. McNeill Engineering Equipment Co., Chicago, Ill.
ECLIPSE CORN KING — Yard hydrants. John C. Kupferle Foundry Co., St. Louis.
ECLIPSE UNDERWRITERS — Fire hydrants. John C. Kupferle Foundry Co., St. Louis, Mo.
ECLO—Hand leathers. The Eagle Counter & Leather Co., Cincinnati, Ohio.
ECO—Portable watchman's clock. Detex Watchclock Corp., Chicago, Ill.
ECOLITE—Portable electric hand lanterns. Economy Electric Lantern Co., Inc., Chicago, Ill.
ECONO — Thermostats and hot water units. Metal Saw and Machine Co., Springfield, Mass.
ECONOME—Steam hose couplings. Kelly Machinery Co., Chicago, Ill.
ECONOMEX—Lathyarn. The Hooven & Allison Co., Xenia, Ohio.
ECONOMY—Belt dressing. Baltimore Belting Co., Baltimore, Md.
ECONOMY—Belt lacing. Frey Tanning Co., Lancaster, Pa.
ECONOMY—Cutting and grinding compounds. The White & Bagley Co., Worcester, Mass.
ECONOMY—Faucets (hot and cold water mixing). Morse Grate Bar Co., Inc., Providence, R. I.
ECONOMY — Grease cups. American Injector Co., Detroit, Mich.
ECONOMY—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
ECONOMY—Wire wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
ECONOMY HYDRAULIC—Damper regulators. L. G. Doolittle, Binghamton, N. Y.
ECONOMY PLUMBER—Chemicals. Hercules Chemical Co., Inc., New York, N. Y.
ECONOMY STRIP — Strip copper. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
EDGE 500—Asbestos sheet packing. The Darcoid Co., Inc., New York, N. Y.
EDGEMONT—Friction clutches. The Edgemont Machine Co., Dayton, Ohio.
EDMANCO—Roofing and sheet steel products. The Edwards Manufacturing Co., Inc., Cincinnati, Ohio.
EDWARDS HERRINGBONE—Tile steel ceiling. The Edwards Manufacturing Co., Cincinnati, Ohio.
EDWARDS TWIN—Metal shingles. The Edwards Manufacturing Co., Cincinnati, Ohio.
EFFICIENCY — Cotters and flat spring keys. The Lamson & Sessions Co., Cleveland, Ohio.
EGYPTIAN—Flax packing. A. W. Chesterton Co., Boston, Mass.
1846 FABA — Transmission belting and hose. New York Belting & Packing Co., Passaic, N. J.
EISEN-GLANZ — Hot surface paint. Ensign Products Co., Cleveland, Ohio.
EL CAPITAN — Sheet packing. Rhopac Products Corp., Chicago, Ill.
EL TORO—Leather belt dressing. Baldwin Belting & Leather Co., Inc., New York, N. Y.
ELASTIC STANDARD—Mill white paint. H. Rinald Co., Philadelphia, Pa.
ELASTIGUM—Roofing cement. The Barrett Co., New York, N. Y.
ELASTITE — Asphalt specialties. The Philip Carey Co., Lockland, Ohio.
ELAXTIC—Rubber belt splicing cement. Norton Belting Co., Wellesley Hills, Mass.
ELBON—Hose and packing. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ELCO—Bolts, nuts, pipe plugs and screws. Elco Tool & Screw Corporation, Rockford, Ill.
ELECTRAKEEN—Lawn mower sharpener. Foley Manufacturing Co., Inc., Minneapolis, Minn.
ELECTRIC—Steel wheels. Electric Wheel Co., Quincy, Ill.
ELECTRIC BRONZE — Bronze bars and pipe fittings. M. L. Oberdorfer Brass Co., Syracuse, N. Y.
ELECTRIC WATER BOY—Electric automatic cellar drainer. Weil Pump Co., Chicago, Ill.
ELECTRIMMER—Hedge trimmer. Skilsaw, Inc., Chicago, Ill.
ELECTRITUBE—Light wall steel conduit. Clayton Mark & Co., Chicago, Ill.
ELECTROGUN—Power lubrication equipment. Stewart-Warner Corp., Alemite Division, Chicago, Ill.
ELECTRO-LIFT—Electric hoists. Products Manufacturing Co., Milwaukee, Wis.
ELECTROLON—Grinding wheels, rubbing bricks, etc. The Abrasive Co., Division of Simonds Saw and Steel Co., Philadelphia, Pa.
ELECTROMIL—Milling machine. Sundstrand Machine Tool Co., Rockford, Ill.
ELECTROMODE—Unit electric heaters. Electric Air Heater Co., Div. American Foundry Equipment Co., Mishawaka, Ind.
ELECTRUNITE—Mechanical tubing, boiler tubes, condenser tubes, heat exchanger tubes, evaporator tubes, air preheater tubes, hot water heater tubes, superheater tubes, air conditioning tubing, refrigeration tubing, locomotive flues, stainless tubing. Steel & Tubes, Inc., Cleveland, Ohio.
ELEK-TROL-IK—Treatment, water for boilers. Oneida Electric Mfg. Co., Green Bay, Wis.
ELEMENT ROPE — Balata "V" belting. R. & J. Dick Co., Inc., Passaic, N. J.
ELEPHANT—Phosphor bronze products. The Phosphor-Bronze Co., Philadelphia, Pa.
ELEVAY — Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ELK—Hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ELK—Shut-off nozzles, hose racks and reels. Elkhart Brass Mfg. Co., Elkhart, Ind.
ELWEL—Coil, machine and truck chain. American Chain Co., Inc., Bridgeport, Conn.
EMBLEM—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
EMBURY—Highway torches. Embury Manufacturing Co., Warsaw, N. Y.
EMERALD CORD—V belts and air hose. The Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
EMERGENCY — Steam traps. Wright-Austin Co., Detroit, Mich.
EMERGENCY—Lubricators. American Injector Co., Detroit, Mich.
EMERGENCY—Pipe clamps. M. B. Skinner Co., South Bend, Ind.
EMMERT—Vises. Emmert Mfg. Co., Waynesboro, Pa.
EMPIRE—Bolts, nuts, rivets and washers. Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
EMPIRE — Fire clay brick. A. P. Green Fire Brick Co., Mexico, Mo.
EMPIRE—Truck, barrow and truck wheels. Empire Manufacturing Co., Quincy, Ill.
ENAMELKOTE—Rigid steel conduit pipe. Clayton Mark & Co., Chicago, Ill.
END SHAK — Testing sieve shaker. Newark Wire Cloth Co., Newark, N. J.
END-WOOD—Truck wheels and casters. The Metzgar Co., Grand Rapids, Mich.
ENDUCO — High temperature pipe and boiler covering. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
ENDURA—Gaskets and packing. Endura Mfg. Corp., Quakertown, Pa.
ENDURA STAINLESS STEEL — Bolts, nuts and rivets. Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
ENDURANA—Belting, hose and packings. Hamilton Rubber Mfg. Co., Trenton, N. J.
ENDURANCE — Hose and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
ENDURO—Stainless steel. Alloy Steel Div., Republic Steel Corp., Massillon, O.
ENDURO — Unions. Lockport Fittings Co., Inc., Lockport, N. Y.
ENGBERG — Steam engines and engine generator sets. Troy Engine & Machine Co., Troy, Pa.
ENGINEERS' FAVORITE—Flue scraper. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
ENTERPRISE—Valves. D. A. Hinman & Co., Inc., Sandwich, Ill.
EQUATOR—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
EQUIPOISE—Rotary shaft valves, etc. H. Belfield Co., Philadelphia, Pa.
EQUIPTO—Steel factory equipment. Aurora Equipment Co., Aurora, Ill.
EQUOTAN — Leather belting. Holyoke Belting Co., Holyoke, Mass.
ERIE — Drilling and tapping machines. Hays Manufacturing Co., Erie, Pa.

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ERIE—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ERWOOD (KENNEDY-ERWOOD) — Swing gate valves. The Kennedy Valve Mfg. Co., Elmira, N. Y.
ESICO—Electric soldering coppers and irons, soldering pots and electric soldering furnaces. Electric Soldering Iron Co., Inc., New York, N. Y.
ESSENTIALITE—Welding glass. Chicago Eye Shield Co., Chicago, Ill.
ESSEX — Lubricating devices. Essex Brass Corp., Detroit, Mich.
ESSEX PATTERN—Cocks, locks. Walworth Company, New York, N. Y.
ESSTEE—Paint. American Asphalt Paint Co., Chicago, Ill.
ETERNIUM—Acid and alkali resisting paint. The Barrett Co., New York, N. Y.
ETTCO—Drill chucks, tapping devices, etc. Ettco Tool Co., Brooklyn, N. Y.
ETTCO-EMRICK—Multiple spindle drill and tapping heads, tapping machines and drill chucks. Ettco Tool Co., Brooklyn, N. Y.
ETTER—Hand and wind mill pumps. Domestic Engine & Pump Co., Shippensburg, Pa.
EUREKA—Gauge glasses. Semon Bache & Co., New York, N. Y.
EUREKA—Hose couplings for rock drills. The Rauch Manufacturing Co., Galena, Kan.
EUREKA—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
EUREKA—Leather belting. Page Belting Co., Concord, N. H.
EUREKA—Paints, cements, etc. Otley Paint Mfg. Co., Chicago, Ill.
EUREKA—Post hole diggers. Iwan Brothers, South Bend, Ind.
EUREKA — Rope and twine. Columbian Rope Co., Auburn, N. Y.
EVALLOY—Stainless steel. The Edward Valve & Mfg. Co., East Chicago, Ind.
EVALNITE—Nitralloy. The Edward Valve & Mfg. Co., East Chicago, Ind.
EVALTHRUST—Ball bearing yoke. The Edward Valve & Mfg. Co., East Chicago, Ind.
EVANACTION—Diaphragm valves. Taylor Instrument Companies, Rochester, N. Y.
EVANSTON—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
EVEN TRIM — Special machine butcher block and casting brushes. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
EVERDUR—Sheets, wire, tubes, etc. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
EVEREDY — Electric hoists. Reading Chain & Block Corp., Reading, Pa.
EVERGRIP—Hose clamps. Everhot Mfg. Co., Maywood, Ill.
EVERJET—Paint for iron work, boilers, etc. The Barrett Co., New York, N. Y.
EVERLAST—Mops. Sullivan Brush & Mop Co., Terre Haute, Ind.
EVERLASTIC—Roll roofing. The Barrett Co., New York, N. Y.
EVERLASTING—Brazed steel oilers. P. Wall Mfg. Supply Co., Pittsburgh.
EVERLASTING—Valves. Everlasting Valve Co., Jersey City, N. J.
EVERLOCK — Gasoline hose couplings. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
EVERSTICK—Patent solder. Federated Metals Corp., New York, N. Y.
EVERWELD — Metal bar. Everhot Mfg. Co., Maywood, Ill.
EVRINEDE — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
EVRTYTE—Valves. The Strong, Carlisle & Hammond Co., Cleveland, Ohio.
EWART—Link belt. Link-Belt Co., Chicago, Ill.
EXCEL—Electric drill and wire connectors. Ideal Commutator Dresser Co., Sycamore, Ill.
EXCEL—Unions. Lockport Fittings Co., Inc., Lockport, N. Y.
EXCEL-ALL — Canvas polishing wheels. Divine Brothers Co., Utica, N. Y.
EXCELLAL BULL DOG — Tool grinders and electric bench grinder. Western Hdwe. Mfg. Co., Milwaukee, Wis.
EXCELSALL—Tool handles. O. P. Link Handle Co., Salem, Ind.
EXCELPAX — Packing. Excel Asbestos Mfg. Co., Garwood, N. J.
EXCELSIOR—Bolts, rivets, rods, washers, wire, etc. Berry Brothers, Columbus, Ohio.
EXCELSIOR—Double acting force pump. Rumsey Pump Corp., Seneca Falls, N. Y.
EXCELSIOR—Gauge cocks. The Lunkenheimer Co., Cincinnati, Ohio.
EXCELSIOR — Grinders, drills, presses, etc. Royersford Foundry and Machine Co., Royersford, Pa.
EXCITER—Round leather belting. McCauley Belting Co., Chicago, Ill.
EXPLOSO—Lubricators. American Injector Co., Detroit, Mich.
EXTRA CHOICE—Leather belting, belt cement, lubricant, etc. O'Meara Belting Co., Omaha, Neb.
EXTRUDO—Wire. Youngstown Sheet and Tube Co., Youngstown, Ohio.
E-Z KLEEN—Sediment traps. A. L. Swett Iron Works, Medina, N. Y.
EYETECTS—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
EZY-OUT—Screw extractors. The Cleveland Twist Drill Co., Cleveland, Ohio.

F

F. & D.—Gauge glasses. Friedrich & Dimmock, New York, N. Y.
F AND H—Pipe bands. Sacramento Pipe Works, Sacramento, Calif.
F L GROBET—American and Swiss pattern files. Grobet File Corp. of America, New York, N. Y.
F. & M.—Beam clamps, drains, etc. Fee & Mason Mfg. Co., Inc., New York, N. Y.
FAB—Unions. Lockport Fittings Co., Inc., Lockport, N. Y.
FABRI-KROME — Leather faced cotton belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
FAIRBANKS — Valves, hand trucks and wheel barrows. The Fairbanks Co., New York, N. Y.
FALCON—Tool handles. American Handle Co., Jonesboro, Ark.
FALLS — Power transmission equipment. The Falls Clutch & Machinery Co., Cuyahoga Falls, Ohio.
FAMOUS—Belt dressing. McCauley Belting Co., Chicago, Ill.
FARNAN — Brass and bronze products. Farnan Brass Works Co., The, Cleveland, Ohio.
FAST—Flexible couplings. The Bartlett Hayward Co., Baltimore, Md.
FASTCUT — Sharpening stones. Behr-Manning Corp., Troy, N. Y.
FAULTLESS—Conveyor belt. Link-Belt Co., Chicago, Ill.
FAULTLESS—Hose. Home Rubber Co., Trenton, N. J.
FAV-O-RITE—Valve lifters. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
FAVORITE—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
FAVORITE—Reversible ratchet wrench. Greene, Tweed & Co., New York, N. Y.
FEATHER VALVE—Compressor valves. Worthington Pump and Machinery Corp., Harrison, N. J.
FEATHERWEIGHT—Goggles and masks. C. H. Dockson Co., Detroit, Mich.
FEATHERWEIGHT—Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
FEATHERWEIGHT—Pipe and boiler insulation. Keasbey & Mattison Co., Ambler, Pa.
FEDELCODE — Electric sirens. Federal Electric Co., Chicago, Ill.
FEDERAL—Water filters. Loomis-Manning Filter Manufacturing Co., Philadelphia, Pa.
FEDERALITE—Metallic packing. Federal Metallic Packing Co., Wakefield, Mass.
FEDERAL WARRANTED—Gauges. The Mercoid Corp., Chicago, Ill.
FEDMET—Solder. Federated Metals Corp., New York, N. Y.
FEL-PRO—Gaskets, washers and packing. Felt Products Mfg. Co., Chicago, Ill.
FEMPAC—Plastic packing. Federal Metallic Packing Co., Wakefield, Mass.
FERRENEWO IBBM—Globe, angle, cross and check valves. The Lunkenheimer Co., Cincinnati, Ohio.
FERRO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
FERRO CASE—Case hardening compounds. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
FERROLITE—Grinding wheels. E. C. Atkins and Co., Indianapolis, Ind.
FERROPAC — Fibrous sheet with metal core. Victor Mfg. & Gasket Co., Chicago, Ill.
FERROWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
FIBRELASTIC—Cork gaskets. Armstrong Cork Products Co., Lancaster, Pa.
FIBREKOTE—Plastic weather proofing. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
FIBREX—Non-metallic tree wire. Simplex Wire & Cable Co., Boston, Mass.
FIBROFELT—Insulating board. Union Fibre Sales Co., Winona, Minn.
FIBRO-FORGED—Hollow screws, set and cap, stripper bolts and countersunk pipe plugs. The Holo-Krome Screw Corp., Hartford, Conn.
FIBRO-SUPERHEAT-SHEET—Packings. New York Belting & Packing Co., Passaic, N. J.
FIDELITY—Raw edge transmission belting. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
FIELD—Glass body oil cups. Consolidated Brass Co., Detroit, Mich.
FIELDCO — Washers, gaskets, packing, etc. R. B. Field & Co., Worcester, Mass.
FILMON—Boiler and anti-rust treatment. The Hollow Center Packing Co., Cleveland, Ohio.
FILQUIK—Gasoline nozzle valves. The D. T. Williams Valve Co., Cincinnati, O.
FINGER-GRIP — Package conveyor belts. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
FIRE-GUN—Fire extinguishers. American-LaFrance & Foamite Corp., Elmira, N. Y.
FIRECRETE—Refractory cements. Johns-Manville, New York, N. Y.
FIREITE—Refractory cements. Johns-Manville, New York, N. Y.
FIRELESS HYPRESSURE JENNY—Vapor spray cleaning machine. Homestead Valve Mfg. Co., Coraopolis, Pa.
FIRMA—High pressure gauge glasses. Advance Packing & Supply Co., Chicago.
FIRMTREAD—Steel floor plates. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
FIRMUS—Tool handles. O. P. Link Handle Co., Salem, Ind.
FIRO—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
FIRST AID—Fire extinguisher. W. D. Allen Mfg. Co., Chicago, Ill.
FISCO—Corrosive resisting valve trimming. The Fisher Governor Co., Marshalltown, Iowa.
FISH & HOOK BRAND—Saws. Sandvik Saw & Tool Corp., Minneapolis, Minn.
FISHERMAN—Gasoline engines. Loane Engineering Co., Baltimore, Md.
FISKE'S — Oils & Greases. Lubriplate Division, Fiske Brothers Refining Co., New York, N. Y.
FITLER (in Diamond)—Manila rope, sisal rope, twines and yarns. The Edwin H. Fitler Co., Philadelphia, Pa.
FITLER JAVA—Sisal rope. The Edwin H. Fitler Co., Philadelphia, Pa.
FLANGETITE—Asbestos sheet packing. The Darcoid Co., Inc., New York, N. Y.
FLARING—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill
FLASTIC—Grinding wheels. The Sterling Grinding Wheel Co., Abrasive Division of The Cleveland Quarries Co., Tiffin, O.
FLAT UNICOAT — Mill white paint. H. Rinald Co., Philadelphia, Pa.
FLATLINK—Weldless chain. The McKay Co., Pittsburgh, Pa.
FLATPLUG—Valves. Everlasting Valve Co., Jersey City, N. J.
FLATROLL—Belt conveyor idlers. Link-Belt Co., Chicago, Ill.
FLAWLESS BRAND SEAMLESS—Brass and copper tubing and ferrules. The National Copper & Smelting Co., Cleveland, Ohio.
FLEETWELD — Welding electrode. The Lincoln Electric Co., Cleveland, Ohio.
FLETCHER—Gauge glass cutters. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
FLEXCO & FLEXCO LOK—Electric lamp guards. Flexible Steel Lacing Co., Chicago, Ill.
FLEXCO D. W.—Deep well belt clamps. Flexible Steel Lacing Co., Chicago, Ill.
FLEXCO H D—Steel belt fasteners. Flexible Steel Lacing Co., Chicago, Ill.
FLEX-ALIGN—Flexible couplings. Baldor Electric Co., St. Louis, Mo.
FLEXEAL—Woven-wire-inserted asbestos gasket with corrugated metal core. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
FLEXGRIP—Couplings for round belting. Armstrong-Bray & Co., Chicago, Ill.
FLEXI UNIT—Centrifugal pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
FLEXIBLAC—Protective paint. The Wilbur & Williams Co., Boston, Mass.
FLEXICORD—Endless belts and paper mill hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
FLEXITE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
FLEXITITE—Gate valves. Ohio Brass Co., Mansfield, Ohio.
FLEXLOCK—Pipe joints. The B. F. Goodrich Co., Cleveland, Ohio.
FLEXMORE—Balata sieve lining and balata belting. Victor Balata Textile & Belting Co., New York, N. Y.
FLEXO-SPOUT—Gasoline and oil filling cans. Eagle Mfg. Co., Wellsburg, W. Va.
FLEXOID—Flexible couplings. The Smith Power Transmission Co., Cleveland, O.
FLEXOTYPE—Leather belting. Alexander Brothers, Inc., Philadelphia, Pa.
FLEXPAN—Flexible joint gas pipe. Pacific States Cast Iron Pipe Co., Provo, Utah.
FLEXPIN—Couplings. Smith & Serrell, Newark, N. J.
FLEXSEAL—Hose joints. The B. F. Goodrich Co., Akron, Ohio.
FLEXSET—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
FLEXSTEEL—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.

FLEXTAN — Leather belting. Chicago Belting Co., Chicago, Ill.
FLEXTIC—Leather belt dressing. Norton Belting Co., Wellesley Hills, Mass.
FLINT EDGE—Axes, hammers, hatchets, etc. American Fork & Hoe Co., Cleveland.
FLINT-IRON—Ash conveyor pipe. The Frederick Iron & Steel Co., Frederick, Md.
FLINT-RIM—Sprocket wheels. Link-Belt Co., Chicago, Ill.
FLOORCRAFTER—Mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
FLORIDA—House force pumps. Rumsey Pump Corp., Seneca Falls, N. Y.
FLOWER—Check and balanced valves. Scott Valve Manufacturing Co., Detroit, Mich.
FLYFOOT BELT STICK—Belt dressing. Chas. A. Schieren Co., New York, N. Y.
FOAMITE—Fire extinguishers, foam generators and systems, etc. American-LaFrance and Foamite Corp., Elmira, N. Y.
FONDCOAT — Waterproofing compounds. Vita-Var Corp., Newark, N. J.
FOODTEX—Conveyor Belting. Victor Balata & Textile Belting Co., New York.
FOOTLIFT—Lift trucks. Lewis-Shepard Co., Boston, Mass.
FORBES—Pipe, bolt and nipple threading machines, etc. The Curtis & Curtis Co., Bridgeport, Conn.
FORCE-AIR—Blower or exhaust fans. Victor Electric Products, Inc., Cincinnati, Ohio.
FORCEWELD—Casters. The Service Caster & Truck Co., Albion, Mich.
FORD—Chain hoists. Ford Chain Block Co., Philadelphia, Pa.
FORD—Ship augers. Millers Falls Co., Greenfield, Mass.
FORESTER—Brush cutting and pruning tool. H. K. Porter, Inc., Everett, Mass.
FORGSTEEL—Fittings and valves. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
FORMPROOF—Metal, money bag and milk can seals. Chicago Expansion Bolt Co., Chicago, Ill.
FORTUNE—Transmission belting. The Mechanical Rubber Co., Passaic, N. J.
44 "TOOLMAKER" — Fractional horse power precision grinders. The Dumore Co., Racine, Wis.
FOUR-IN-ONE—Bakelite valve handles. Diemolding Corporation, Canastata, N. Y.
FORZOIL—Pump type hand oilers. Anthes Force Oiler Co., Fort Madison, Iowa.
FRANCE PACKING—Packing. The France Packing Co., Tacony, Philadelphia, Pa.
FRANCKE—Bushed pin couplings. John Waldron Corp., New Brunswick, N. J.
FRANKO — Solid woven belting. The Franklin Cotton Mill Co., Cincinnati, O.
FREFLO—Centrifugal pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
FRESNO—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
FRETZ—Pipe nipples. Thos. Devlin Manufacturing Co., Burlington, N. J.
FRONT END—Hot surface paint. The Barrett Co., New York, N. Y.
FROTHEX FOAM — Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
FRUITALL—Barrel sprayer. Goulds Pumps, Inc., Seneca Falls, N. Y.
FULTON—Hose, belting, packing and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
FYER-WAY—Fire doors. Richards-Wilcox Mfg. Co., Aurora, Ill.
FYRE-FREEZE—Fire extinguishers. Walter Kidde & Co., Inc., Bloomfield, N. J.
FYRE-MORTAR — Refractory cement. Quigley Co., Inc., New York, N. Y.
FYROUT — Fire extinguishers. Walter Kidde & Co., Inc., Bloomfield, N. J.
FYRPRUF—Fireproof clothing, leggings, etc. Gross Rubber Co., Sharon, Pa.

G

"G"—Fittings, pipe hangers, valves. Grinnell Co., Inc., Providence, R. I.
"G" (in circle)—Hack saw blades. Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
G. J. BOSS—Hose couplings. Dixon Valve & Coupling Co., Philadelphia, Pa.
G.L.—Oilers. Gustave Lidseen, Inc., Chicago, Ill.
G.P.&F.—Sheet metal products. Geuder, Paeschke & Frey Co., Milwaukee, Wis.
GP/777—Hack saw blades. Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
G. R. CO.—Fire brick, high temperature cements and castable refractories. General Refractories Co., Philadelphia, Pa.
G.S.M.—Semi-metallic hose. Goodall Semi-Metal Hose & Mfg. Co., Philadelphia, Pa.
GA-SMOKE—Burners. Bate Boiler Efficiency Co., Conshohocken, Pa.
GALVACAP—Industrial brooms. Deshler Broom Factory, Deshler, Neb.
GALVAKOKE—Rigid steel conduit pipe. Clayton Mark & Co., Chicago, Ill.
GALVANIDE ZINC—Paint. A. C. Horn Co., Long Island City, N. Y.
GALVANITE—Paint. Otley Paint Mfg. Co., Chicago, Ill.
GALVANNEAL — Steel sheets. Youngstown Sheet and Tube Co., Youngstown, Ohio.
GALVANUM—Paint for galvanized iron. Vita-Var Corp., Newark, N. J.
GAM-TAN BRAND—Leather belting. F. Ranlville Co., Grand Rapids, Mich.
GANISAND—Granular refractory. Quigley Co., Inc., New York, N. Y.
GARCO—Packing, wick, rope and gasket tape. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
GARCOBESTOS—Asbestos metallic sheet packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
GARDEN CITY—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
GARDEN CLUB—Garden hose. The B. F. Goodrich Co., Akron, Ohio.
GARDINER CRUSHER—Babbitt metal. Gardiner Metal Co., Chicago, Ill.
GARDINER FLUX-FILLED — Solders. Gardiner Metal Co., Chicago, Ill.
GARDINER GENUINE—Babbitt metal. Gardiner Metal Co., Chicago, Ill.
GARDINER GOLD BOND—Babbitt metal. Gardiner Metal Co., Chicago, Ill.
GARDINER MARINE GENUINE—Babbitt metal. Gardiner Metal Co., Chicago.
GARDINER STEELITE—Babbitt metal. Gardiner Metal Co., Chicago, Ill.
GARDNER—Tong and pipe wrench fittings. The Billings & Spencer Co., Hartford, Conn.
GARFIELD—Injectors and ejectors. Ohio Injector Co., Wadsworth, Ohio.
GARNET—Rubber air hose. Mulconroy Company, Philadelphia, Pa.
GAS ENGINE—Grease cups. American Injector Co., Detroit, Mich.
GASOGUN—Gasoline nozzle valves. The D. T. Williams Valve Co., Cincinnati, O.
GAYLIME—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
GEARO—Gear lubricant. American Oil & Grease Corp., Chicago, Ill.
GEE FLEX—Wrenches. Stevens Walden, Inc., Worcester, Mass.
GEM—Double acting force pumps. Rumsey Pump Corp., Seneca Falls, N. Y.
GEM—Fire extinguishers. Walter Kidde & Co., Inc., Bloomfield, N. J.
GEM—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
GEM—Tapes. Eugene Dietzgen Co., Chicago, Ill.
GENASCO—Roofing, shingles, sidings and felts. The Barber Asphalt Co., Philadelphia, Pa.
GENERAL — Adjustable hose clamps. American Stamping Co., Battle Creek, Mich.
GENUINE DETROIT—Lubricators, radiator valves and heating accessories. Detroit Lubricator Co., Detroit, Mich.
GENUINE KARNS BOW SPRING—Valve cups. Parker Cup & Specialty Works, Inc., Parkers Landing, Pa.
GENUINE SOVEREIGN BABBITT—Babbitt metal. Glacier Metal Co., Richmond, Va.
GEOMETRIC—Screw threading machines and tools. The Geometric Tool Co., New Haven, Conn.
GERSTNER—Tool cases and chests. H. Gerstner & Sons, Dayton, Ohio.
GIANT—Belt lacings. Chas. A. Schieren Co., New York, N. Y.
GIANT—Blower and suction devices. Ideal Commutator Dresser Co., Sycamore, Ill.
GIANT—Cutting and shredding machinery. Taylor, Stiles & Co., Riegelsville, N. J.
GIANT—Floodlight projectors, pipe pushers and pulling and pushing jacks. Giant Mfg. Co., Council Bluffs, Iowa.
GIANT—Keyseater and nibbler. Mitts and Merrill, Saginaw, Mich.
GIANT—Manila rope. The Upson-Walton Co., Cleveland, Ohio.
GIANT—Ratchet socket wrenches. Keystone Mfg. Co., Buffalo, N. Y.
GIANT GRIP—Truck chains and arc welders. Giant Grip Mfg. Co., Oshkosh, Wis.
GIANT METAL—Sash chain. The Smith & Egge Division of The Turner & Seymour Mfg. Co., Torrington, Conn.
GIANT (No. 7)—Grinders. The Dumore Co., Racine, Wis.
GIBBS—Automatic grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
GIBBS—Post hole diggers. Iwan Brothers, South Bend, Ind.
GILBERT—Gauge glass gaskets. Morse Grate Bar Co., Inc., Providence, R. I.
GILMORE—Boiler tube cleaners. D. J. Crowell & F. G. Crowell, Buffalo, N. Y.
GILSEK—Asphalt paint. American Asphalt Paint Co., Chicago, Ill.
GILT EDGE—Flat leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
GILT EDGE—Round leather belting. I. B. Williams & Sons, Dover, N. H.
GILT EDGE SPINDLE—Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
GLASS VALVE—Brass and brass lined cylinders. The F. E. Myers & Bro. Co., Ashland, Ohio.
GLANTITE JOINT—Cast iron water pipe. McWane Cast Iron Pipe Co., Birmingham, Ala.
GLASWICK—Oil cup. The Lunkenheimer Co., Cincinnati, Ohio.
GLAZO—Glazing and calking cement. Ensign Products Co., Cleveland, Ohio.
GLOBE—Cornered steel grit. The Globe Steel Abrasive Co., Mansfield, Ohio.
GLOBE—Tumbling and burnishing barrels, tool boxes, pipe hangers and sprinkler hangers. The Globe Machine & Stamping Co., Cleveland, Ohio.
GLYCO—Babbitt metal. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
GOETZE—Gaskets. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
GOETZERIT—Compressed asbestos sheet packing. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
GOLD BOND—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
GOLD EDGE—Brake lining. Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
GOLD MEDAL—Files. Henry Disston & Sons, Inc., Philadelphia, Pa.
GOLD MEDAL Ladders. Chesebro Whitman Co., Inc., Long Island City, N. Y.
GOLD MEDAL—Ladders and scaffolding. The Patent Scaffolding Co., Chicago, Ill.
GOLD SEAL—Pump valves and valve discs. Rhopac Products Corp., Chicago, Ill.
GOLD STRAND—Screen wire cloth. Wickwire Spencer Steel Co., New York, N. Y.
GOLD STRIPE—Paint, varnish and calcimine, etc., brushes, etc., Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
GOLD TIP—Glass cutters. The Fletcher-Terry Co., Forestville, Conn.
GOLDEN GATE — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GOLDEN OAK—Leather belting. E. P. Alexander & Son, Inc., Clifton Heights, Pa.
GOLDEN ROD—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
GOLDEN RULE—Grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
GOLDEN STATE—Leather belting and cup leathers. H. N. Cook Belting Co., San Francisco, Calif.
GOLDEN STATE — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GOLDSMITH—Hose rack. W. D. Allen Mfg. Co., Chicago, Ill.
GOLDSMITH — Throttle valves. Scott Valve Manufacturing Co., Detroit, Mich.
GOODENUF—Tool handles. O. P. Link Co., Salem, Ind.
GOODSELL—Packings. Goodsell Packing Co., Algonquin, Ill.
GOPHER—Floor trucks. Nutting Truck Co., Faribault, Minn.
GORTON—Valves and draft regulators. Gorton Heating Corp., Cranford, N. J.
GOTHIC—Asbestos Cement Shingles. The Ruberoid Co., New York, N. Y.
GOVERNMENT GENUINE—Babbitt. United American Metal Corp., Brooklyn, N. Y.
GRADA—Metal tile and porcelain cleanser. The Grady Mfg. Co., Long Island City, N. Y.
GRAINOR—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GRAINVEY—Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GRANITE-OAK—Leather and round belting. Geo. Rahmann & Co., New York, N. Y.
GRAPH-AIR—Graphite products. Joseph Dixon Crucible Co., Jersey City, N. J.
GRAPHON—Rod packing. New York Belting & Packing Co., Passaic, N. J.
GRAPHOXIDE IRON CLAD—Paint. Otley Paint Mfg. Co., Chicago, Ill.
GRAY LINE (THE)—Woodworking machinery. Delta Mfg. Co., Milwaukee, Wis.
GRCO—High temperature cements, fire brick, plastics, etc. General Refractories Co., Philadelphia, Pa.
GREAT SEAL—Transmission and conveyor belting. New York Belting & Packing Co., Passaic, N. J.
GREAT SEAL CORD—Endless transmission belt, lawn, water and spray hose. New York Belting & Packing Co., Passaic, N. J.
GREAT WESTERN — Files and rasps. Nicholson File Co., Providence, R. I.
GREEN BAND—Moulders' shovels. The Osborn Manufacturing Co., Cleveland.

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GREEN KNIGHT—Water systems. Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
GREEN LINE—Tackle blocks. The Upson-Walton Co., Cleveland, Ohio.
GREEN RIVER—Straightening presses, shoeing vises, bolt headers, mandrels, etc. B. B. Noyes Co., Greenfield, Mass.
GREENERD—Arbor and hydraulic presses. Edwin E. Bartlett Co., Nashua, N. H.
GREENFIELD—Adjustable pipe stocks and dies and adjustable bolt dies. Greenfield Tap and Die Corp., Greenfield, Mass.
GREENITE—Manila rope. The Edwin H. Fitler Co., Philadelphia, Pa.
GREFCO — High temperature cements. General Refractories Co., Philadelphia, Pa.
GRENADIER—Hose and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
GREY-ROCK—Asbestos brake linings and clutch facings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
GREYHOUND—Hand saws. The Ohlen-Bishop Co., Columbus, Ohio.
GREYHOUND—Padlocks. Master Lock Co., Milwaukee, Wis.
GRID—Unit heaters. Unit Heater & Cooler Co., Wausau, Wis.
GRIDISC—Disc grinding wheels. Peninsular Grinding Wheel Co., Detroit, Mich.
GRIMM'S BLOWER—Tube cleaners. William H. Murray, Brooklyn, N. Y.
GRIP-O-TAN — Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
GRIP-TITE—Belt and cement. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GRIP-TITE—Hose clamps. Clamps, Inc., Brooklyn, N. Y.
GRIPBELTS—V-Belts. The Ohio Valley Pulley Works, Division Browning Mfg. Co., Inc., Maysville, Ky.
GRIPON—Wire lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
GRIPSTICK—Belt dressing. Chicago Belting Co., Chicago, Ill.
GRIPTITE—"V" belts. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GRIPWELL DUKTEX—Pulley surface coverings. Gripwell Mfg. Co., New York.
GRIZELY—Portable loaders. Link-Belt Co., Chicago, Ill.
GROBET (FL)—American and Swiss pattern files. Grobet File Corp. of America, New York, N. Y.
GROG-O-MIX—Crushed fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
GROUND FROM THE SOLID — Taps, thread gauges and roll threading dies. John Bath & Co., Inc., Worcester, Mass.
GRUNDY — Flexible couplings. Charles Bond Co., Philadelphia, Pa.
GUARANTEED — Transmission belting. New York Belting & Packing Co., Passaic, N. J.
GUARD—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
GUARDENE—Fire extinguishers and fire engines. Pyrene Manufacturing Co., Newark, N. J.
GUARDIAN — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GUARDIAN—Watchman's single station register. Detex Watchclock Corp., Chicago, Ill.
GULF—Belt, hose, packing and mats. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GULMITE—Cap, set, wood and machine screws. Rockford Screw Products Co., Rockford, Ill.
GUN—Spiral pointed taps. Greenfield Tap and Die Corp., Greenfield, Mass.
GUN METAL—Belt studs. Manufacturers' Belt Hook Co., Chicago, Ill.
GUN-PACKT — Expansion joints. Yarnall-Waring Co., Chestnut Hill, Philadelphia.
GUYBYE—Combination eye bolt and thimble. Hubbard & Co., Pittsburgh, Pa.

H

H&A—Bench woodworking machines. Heston & Anderson, Fairfield, Iowa.
H&A—Manila, jute, sisal rope, twine, packing, etc. The Hooven & Allison Co., Xenia, Ohio.
H&T—Safety derrick slide. E. D. Bullard Co., San Francisco, Calif.
HB—Ball bearings. S.K.F. Industries, Inc., Philadelphia, Pa.
H. B.—Dredge chain. American Chain Co., Inc., Bridgeport, Conn.
HKP—Pruning and bush cutting tools. H. K. Porter, Inc., Everett, Mass.
HP—Pulleys, hangers, etc. Boston Gear Works, Inc., North Quincy, Mass.
H-P-M — Presses, pumps, accumulators, valves and fittings. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
H. T. GARNET—Garnet paper, cloth and combinations. Armour Sand Paper Works, Chicago, Ill.
HADCO—Bin labels, medal card holders, etc. Haddon Bin Label Co., Haddon Heights, N. J.
HADES — Belting. Gandy Belting Co., Grand Rapids, Mich.
HAGER—Check valves. The Williams Gauge Co., N. S., Pittsburgh, Pa.
HALSEY TAYLOR—Drinking fountains and water coolers. The Halsey W. Taylor Co., Warren, Ohio.
HALLOWELL—Benches, trucks and platforms. Standard Pressed Steel Co., Jenkintown, Pa.
HAMILTON—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
HAMMER—Clamps and oilers. Malleable Iron Fittings Co., Branford, Conn.
HAMMOND—Drilling, tapping and polishing machines. The Strong, Carlisle & Hammond Co., Cleveland, Ohio.
HAMPDEN — Leather belting. Holyoke Belting Co., Holyoke, Mass.
HAMRTWIST—Masonry drill points. Star Expansion Bolt Co., New York, N. Y.
HAN-DEE—Belt dressing. Duryea Manufacturing Co., Bayonne, N. J.
HANCOCK — Valves. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
HANCOCK—Valves, inspirators and ejectors. Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
HAND PACER—Bushing tool. The Dallett Co., Philadelphia, Pa.
HANDEE—Portable electric grinder. Chicago Wheel & Mfg. Co., Chicago, Ill.
HANDI TORCH—Gasoline and alcohol automatic blow torches. The Turner Brass Works, Sycamore, Ill.
HANDIE-BARO—Wheelbarrows. Sterling Wheelbarrow Co., Milwaukee, Wis.
HANDMADE — Hammers and hatchets. American Fork & Hoe Co., Cleveland, O.
HANDNIB—Combined shear nibbler, rod cutter and inside nibbler. National Machine Tool Co., Racine, Wis.
HANDY—Cleaner brush. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
HANDY—Cotter pins, lock washers, etc. Heiz & Heiz, Inc., Brooklyn, N. Y.
HANDY—Gate valves. The Lunkenheimer Co., Cincinnati, Ohio.
HANDY—Grinders, grinder-buffers, buffers, and battery charges. Baldor Electric Co., St. Louis, Mo.
HANDY—Pump oilers. Eagle Mfg. Co., Wellsburg, W. Va.
HANDY—Silver solders and flux. Handy & Harman, New York, N. Y.
HANDY—Soldering sets. Wm. L. Barrett Co., Bristol, Conn.
HANDY ANDY—Tool grinders. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
"HANDY ANDY"—Vise stands and mounts. Western Wire Products Co., St. Louis, Mo.
HANDY BOY—Gas tapping machines. Hays Manufacturing Co., Erie, Pa.
HANDY-GRIP—Gasoline and oil filling cans. Eagle Mfg. Co., Wellsburg, W. Va.
HANDY-MAN—Pick-up trucks. Saginaw Stamping & Tool Co., Saginaw, Mich.
HANSON - VAN WINKLE - MUNNING — Nickel plating process. Hanson-Van Winkle-Munning Co., Matawan, N. J.
HARBRONZ—Cored and solid bronze bars. Arthur Harris & Co., Chicago, Ill.
HARD ARKANSAS—Oilstones. Behr-Manning Corp., Troy, N. Y.
HARD BOILED—Safety caps and hats. E. D. Bullard Co., San Francisco, Cal.
HARD SPIRAL—Flue brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
HARDENED METALLIC—Drives, screws. Parker-Kalon Corp., New York, N. Y.
HARDIE—Car washers, coal sprayers, air towers, flood lights and sanding machines. Asch & Co., Inc., New York, N. Y.
HARDWEAR—Leather belting. Whiting Leather & Belting Co., Long Island City, N. Y.
HARDWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
HARGRAVE—Mechanics' tools. The Cincinnati Tool Co., Cincinnati, Ohio.
HARRIS — Torches, regulators, etc. The Harris Calorific Co., Cleveland, Ohio.
HARSPAR — Power plant instruments. Harry S. Parks Co., Philadelphia, Pa.
HART—Production counters. R. E. Hart Mfg. Co., Battle Creek, Mich.
HARTFORD—Die filing machines. The Robinson Manufacturing Co., Waterbury, Conn.
HARTFORD—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
HARTZ—Steel tackle and snatch blocks. H. D. Edwards & Co., Detroit, Mich.
HASTY—Soap. Pacific Chemical Co., Los Angeles, Calif.
HAUCK — Oil burners and equipment. Hauck Manufacturing Co., Brooklyn, N. Y.
HAUSFELD — Metal melting furnaces. The Campbell-Hausfeld Co., Harrison, Ohio.
HAVEN'S—Wire grips. M. Klein & Sons, Chicago, Ill.
HAWK—Tool handles. American Handle Co., Jonesboro, Ark.
HAYDEN & DERBY (H-D)—Ejectors and water heaters. Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
HAYES—Files. Hayes File Co., Detroit, Mich.
HAYES RUN—Fire clay brick. General Refractories Co., Philadelphia, Pa.
HAYNES STELLITE — Wear resisting alloys. The Linde Air Products Co., Unit of Union Carbide & Carbon Corp., New York, N. Y.
HAZARD—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
HEALTHGUARD—Masks. Chicago Eye Shield Co., Chicago, Ill.
HEART OF OAK — Leather belting. Charles L. Ireson Co., Philadelphia, Pa.
HEARTH-CRETE — Castable refractory. Quigley Co., Inc., New York, N. Y.
HEATHERBRAND—Low pressure gauge glasses. Advance Packing & Supply Co., Chicago, Ill.
HEAT KILLER—Fans. Coppus Engineering Corp., Worcester, Mass.
HEAT SEAL—Mineral wool insulation. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
HEAVY DUTY—Black belting. The Hettrick Mfg. Co., Toledo, Ohio.
HEAVY DUTY — Emery and grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
HEAVY DUTY—Floor brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
HEAVY DUTY—Reversible Ratchet Wrenches. Lowell Wrench Co., Worcester, Mass.
HEAVY MOTOR—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
HELE-SHAW — Pumps. American Engineering Co., Philadelphia, Pa.
HELICOID—Screw conveyors. Link-Belt Co., Chicago, Ill.
HELIFLEX — Roller bearings. Roller Bearing Co. of America, Trenton, N. J.
HELIOS — Sheet packing and gaskets. Crandall Packing Co., Palmyra, N. Y.
HELL GATE—Transits. W. & L. E. Gurley, Troy, N. Y.
HELLITE—Refractory cements. Johns-Manville, New York, N. Y.
HELYX—Concrete screws. The Hillwood Mfg. Co., Cleveland, Ohio.
HEMCO—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
HENDERSHOT—Couplings. Sprout, Waldron & Co., Inc., Muncy, Pa.
HERCULES—Air compressor lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
HERCULES — Alloy agricultural discs. Crucible Steel Co. of America, New York.
HERCULES—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
HERCULES — Bronze hydraulic valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
HERCULES—Chains. The Jeffrey Manufacturing Co., Columbus, Ohio.
HERCULES—Chemicals. Hercules Chemical Co., Inc., New York, N. Y.
HERCULES and **HERCULES MAJOR**—Drills. Whitman and Barnes, Inc., Detroit, Mich.
HERCULES—Gauge glasses. Semon Bache & Co., New York, N. Y.
HERCULES—Hangers. Sprout, Waldron & Co., Inc., Muncy, Pa.
HERCULES — Hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
HERCULES—Leather aprons. Gross Rubber Co., Sharon, Pa.
HERCULES—Leather belting. Page Belting Co., Concord, N. H.
HERCULES — Portable pneumatic tools and machines. The Buckeye Portable Tool Co., Dayton, Ohio.
HERCULES—Steel pulleys. The Medart Co., St. Louis, Mo.
HERCULES—Step ladders. The Goshen Manufacturing Co., Goshen, Ind.
HERCULES—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
HERCULES—Twist drills, reamers and interchangeable punches. Whitman and Barnes, Inc., Detroit, Mich.
HERCULES ELECTRIC WELD — Steel loading chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
HERCULES MAJOR—Twist drills. Whitman and Barnes, Inc., Detroit, Mich.
HERCULES (RED STRAND)—Wire rope. A. Leschen & Sons Rope Co., St. Louis.
HERCULES SOLID WELD—Steam shovel chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.

HERCULES SPECIAL STEEL — Wire rope. A. Leschen & Sons Rope Co., St. Louis, Mo.
HERKULES — Jewelers' metal cutting band saw blades. Hammel, Riglander & Co., Inc., New York, N. Y.
HERO—Leather belting. W. S. Nott Co., Minneapolis, Minn.
HERO—Rubber hose. Mulconroy Company, Philadelphia, Pa.
HERON—Round belting. Western Rawhide & Belting Co., Milwaukee, Wis.
HET-SON—Canvas goods. W. E. Hettrick & Son, Inc., Toledo, Ohio.
HETMACO—Industrial belting. The Hettrick Mfg. Co., Toledo, O.
HEVI-DUTY — Semi metallic packing. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
HEWMET—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
HEX-TEX — Hexagon two-faced V-belt. Allis-Chalmers Manufacturing Co., West Allis, Wis.
HEX-TOP — Grease cups. Link-Belt Co., Chicago, Ill.
HEXAGON—Post hole diggers. Iwan Brothers, South Bend, Ind.
HI-CARBON—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-DUTY CONNECTIONS — Copper and brass tube couplings and paint spray equipment. Imperial Brass Manufacturing Co., Chicago, Ill.
HI GRADE OAK—Belting, pump packing, discs. The Chicago Rawhide Mfg. Co., Chicago, Ill.
HI-LIFT—Hand regulating valves. H. Belfield Co., Philadelphia, Pa.
HI-LO — Condensation pumps. Yeoman Brothers Co., Chicago, Ill.
HI-LO ALARM—Water columns. Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.
HI LOY—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-QUALITY — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-SPEED — Oxyacetylene welding and cutting torches and tips. C. H. Dockson, Detroit, Mich.
HI-TEMPER—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-TENSILE—Welding electrodes. Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
HI-TEST—Cast iron threaded pipe. Walworth Company, New York, N. Y.
HI-TEST — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-UP—Electric hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
HI-WAY DRAG—Chain tapes. The Lufkin Rule Co., Saginaw, Mich.
HICARBO—Coal chutes. H. B. Sackett Screen & Chute Co., Chicago, Ill.
HICKORY — Belting. Whitehead Bros. Rubber Co., Trenton, N. J.
HICKS—Belt hooks. The Washburn Co., Worcester, Mass.
HICYCLE—Portable electric tools. Chicago Pneumatic Tool Co., New York.
HIFLO — Deepwell pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
HIGH GRADE—Conveyor belting, hose and friction tape. The Mechanical Rubber Co., Passaic, N. J.
HIGH SERVICE—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, O.
HIGH SPEED—Hand saws. The Ohlen-Bishop Co., Columbus, Ohio.
HIGHPLEX—Belting. The B. F. Goodrich Co., Akron, Ohio.
HIGHPLEX JUNIOR — Transmission belts. The B. F. Goodrich Co., Akron, O.
HIGHLAND—Iron and steel bars, bands and shapes. The Highland Iron & Steel Co., Terre Haute, Ind.
HIGHWAY RED—Red lead paint. Vita-Var Corp., Newark, N. J.
HILL—Pumps. Dean-Hill Pump Co., Anderson, Ind.
HILO BUTTERFLY—Gas burners. Bastian-Morley Co., La Porte, Ind.
HINDOSTAN—Oil stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
HINMAN—Benders. D. A. Hinman & Co., Inc., Sandwich, Ill.
HIRSUTE—Round leather belting. Johnson Belting Co., New York, N. Y.
HITENSO—Trolley. Anaconda Wire & Cable Co., New York, N. Y.
HIVOL — Direct-acting steam pump. Worthington Pump and Machinery Corp., Harrison, N. J.
HOBART—Arc welders, air compressors, paint spray equipment, motor generators, car and vehicle washers. Hobart Bros. Co., Troy, Ohio.
HODELL—Coil and sash chain and tire chains. The Chain Products Co., Cleveland, Ohio.
HOFFMAN — Air and vacuum radiator valves and steam traps. Hoffman Specialty Co., Inc., Waterbury, Conn.
HOFFMAN ECONOMY—Condensation and vacuum steam pumps. Hoffman Specialty Co., Inc., Waterbury, Conn.
HOFFMAN ECONOMY—Vacuum and condensation pumps. Economy Pumping Machinery Co., Chicago, Ill.
HOKE—Gauge blocks. Pratt & Whitney Co., Hartford, Conn.
HOLD HEAD—Soldering coppers. The Turner Brass Works, Sycamore, Ill.
HOLD-HEET—Glue pots, heating elements, pots (electric). Russell Electric Co., Chicago, Ill.
HOLE HOG—Machine tools. Moline Tool Co., Moline, Ill.
HOLE SHOOTER—Electric drills. Milwaukee Electric Tool Corp., Milwaukee, Wis.
HOLLANDS—Vises. Hollands Mfg. Co., Erie, Pa.
HOLLY — Steam pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
HOLSCREW—Shaft collars. Bond Foundry and Machine Co., Manheim, Pa.
HOLTITE—Pipe clamps. Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.
HOLTITE—Screws, bolts, nuts, etc. Continental Screw Co., New Bedford, Mass.
HOME—Steel tapes. Keuffel & Esser Co., Hoboken, N. J.
HOME WORKSHOP—Saws and tools. Henry Disston & Sons, Inc., Tacony, Philadelphia, Pa.
HOMEBESTOS—Packing. Home Rubber Co., Trenton, N. J.
HOMESTEAD—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
HOMESTEAD—Valves. Homestead Valve Manufacturing Co., Coraopolis, Pa.
HOMO—Electric tempering and hardening furnaces. Leeds & Northrup Co., Philadelphia, Pa.
HONOR BRAND — Brushes. Sullivan Brush & Mop Co., Terre Haute, Ind.
HONTAS—Screen diaphragms. The Cincinnati Rubber Mfg. Co., Cincinnati, O.
HOOSIER—Mops. Sullivan Brush & Mop Co., Terre Haute, Ind.
HORSFIELD—Tap wrenches. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
HOT BLAST—Blow torches. The Turner Brass Works, Sycamore, Ill.
HOT BLAST—Fire pots. The Turner Brass Works, Sycamore, Ill.
HOTKOTE — Rigid steel conduit pipe. Clayton Mark & Co., Chicago, Ill.
HOUSEHOLD—Soldering sets. Wm. L. Barrett Co., Bristol, Conn.
HOVALCO—Blow off valves. Homestead Valve Mfg. Co., Coraopolis, Pa.
HOWE BROWN—Carbon tool steels. Crucible Steel Co. of America, New York.
HUB—Gasoline torch. The Lenk Mfg. Co., Newton Lower Falls, Mass.
HUB—Unions. Walworth Company, New York, N. Y.
HUDERKUT — Submerged cut off machines. Andrew C. Campbell Division of American Chain Co., Inc., Bridgeport, Conn.
HUG-IT—Belt dressing. Hinds and Coon Co., Boston, Mass.
HUMMER—Foot power grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
HUMP — Electric hardening furnaces. Leeds & Northrup Co., Philadelphia, Pa.
HUMP—Fire hose racks and reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
HUNT—Hydraulic steel mill spray valves. C. B. Hunt & Son, Salem, Ohio.
HUNTINGTON (DESMOND-HUNTINGTON)—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, O.
HUNTINGTON (VINCENT HUNTINGTON)—Emery wheel dressers and cutters. Vincent Steel Process Co., Detroit, Mich.
HURON—Die steel. Ludlum Steel Co., Watervliet, N. Y.
HURON — Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
HUSKY—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
HUSTLER—Machinery dolly. The Service Caster & Truck Co., Albion, Mich.
HUT-O-LAP—Gear lapping machine. The Carborundum Co., Hutto Machine Division, Detroit, Mich.
HUTTO — Cylinder and hole grinders. Stevens Walden, Inc., Worcester, Mass.
HUTTO FLOATING CONE—Hones. The Carborundum Co., Hutto Machine Division, Detroit, Mich.
HUTTO PATENTED TYPE—Hones. The Carborundum Co., Hutto Machine Division, Detroit, Mich.
HYCC—Alloy tool and die steel. Crucible Steel Co. of America, New York, N. Y.
HY-HEET—Electric melting furnaces. R. S. Products Corp., Philadelphia, Pa.
HY-SPEED—Bronze bars. The Buckeye Brass & Mfg. Co., Cleveland, Ohio.
HY-SPEED—Mortising and boring bits. Star Bit & Tool Co., Rockford, Ill.
HY TEST—Hose. New York Belting & Packing Co., Passaic, N. J.
HYALITE — Refractories. Quigley Co., New York, N. Y.
HYALOX—Refractories. Quigley Co., Inc., New York, N. Y.
HYATT—Geared and plain trolleys. Ford Chain Block Co., Philadelphia, Pa.
HYCOE—Brake lining, hose, packing and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
HYDRAULIC — Bronze high pressure valves. The Wm. Powell Co., Cincinnati.
HYDRAULIC—Pump oilers. Eagle Mfg. Co., Wellsburg, W. Va.
HYDRO-POWER — Presses and pumps. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
HYDRO-PROOF—Insulating tape. Elkhart Rubber Works, Elkhart, Ind.
HYDROGARDE—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.
HYDROIL — Small and machine tools. Greenfield Tap & Die Corp., Greenfield, Mass.
HYDROLITE — Integral waterproofing. Vita-Var Corp., Newark, N. J.
HYDRONON—Waterproofing paint. The Barrett Co., New York, N. Y.
HYDROSEAL—Treatment for fire hose jackets. The B. F. Goodrich Co., Akron, Ohio.
HYGIENE — Hose. Home Rubber Co., Trenton, N. J.
HYGRADE — Hack saw and band saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
HYGRADE FLEXIBLE — Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
HYGRADE HANDY—Hack saw frames. The Henry G. Thompson & Son Co., New Haven, Conn.
HYGRADE LAMPS—Large style incandescent lamps. Hygrade Sylvania Corp., Salem, Mass.
HY-LO—Air guns. Jenkins Bros., New York, N. Y.
HYLO—Lanterns. R. E. Dietz Co., New York, N. Y.
HYPER—Rotary chain (oil well). Link-Belt Co., Chicago, Ill.
HYPERION—Sheet packing. The Mechanical Rubber Co., Passaic, N. J.
HYPOWA—Shears, bolt clippers, chain cutters and nut splitters. H. K. Porter, Inc., Everett, Mass.
HYPRESSURE JENNY — Vapor spray cleaning machine. Homestead Valve Mfg. Co., Coraopolis, Pa.
HYRO — Metal punches. Parker-Kalon Corp., New York, N. Y.
HYSPEED—Gun metal bronze bars. Buckeye Brass & Mfg. Co., Cleveland, Ohio.
HYTEMPITE—Refractory cement. Quigley Co., Inc., New York, N. Y.
HYTENS — Grinding wheels. Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.

I

I.X.L.—Gear products. Foote Bros. Gear & Machine Co., Chicago, Ill.
I.X.L.—Independent lathe chucks. Westcott Chuck Co., Oneida, N. Y.
IBECO—Transmission belting. Imperial Belting Co., Chicago, Ill.
IDEAL—Belt dressing. Detroit Oak Belting Co., Detroit, Mich.
IDEAL—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.
IDEAL—Belting, hose and packings. Hamilton Rubber Mfg. Co., Trenton, N. J.
IDEAL—Boilers and hot water heaters. American Radiator Co., New York, N. Y.
IDEAL—Car movers. H. B. Sackett Screen & Chute Co., Chicago, Ill.
IDEAL — Chain wrenches. Brunswick-Kroeschell Co., New Brunswick, N. J.
IDEAL—Electric tools. The Schauer Machine Co., Cincinnati, Ohio.
IDEAL—Fitting and pipe wrenches. Armstrong Bros. Tool Co., Chicago, Ill.
IDEAL—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
IDEAL—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
IDEAL—Hose. Home Rubber Co., Trenton, N. J.
IDEAL—Ladders. Michigan Ladder Co., Ypsilanti, Mich.
IDEAL—Step ladder. Michigan Ladder Co., Ypsilanti, Mich.
IDEAL MOTOR—Babbitt metal. Murphy Metals Co., Chicago, Ill.
ILGAIR—Ventilating fans. Ilg Electric Ventilating Co., Chicago, Ill.
IMICO—Unions and boilers. Illinois Malleable Iron Co., Chicago, Ill.
IMMUNITE—Lenses. Harry Buegeleisen, Brooklyn, N. Y.
IMP—Gasoline blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
IMPERIAL—Flint paper. Minnesota Mining & Mfg. Co., St. Paul, Minn.

UMI

IMPERIAL—Gas burners. Davison Combustion Co., Pittsburgh, Pa.
IMPERIAL—Leather belting. The Taylor Belting Co., Indianapolis, Ind.
IMPERIAL—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
IMPERIAL—Welding equipment, paint sprayers, valves, fittings, refrigeration specialties, etc. Imperial Brass Manufacturing Co., Chicago, Ill.
IMPERIAL FLOATLESS—Automatic electric sump pumps. Imperial Brass Mfg. Co., Chicago, Ill.
IMPERIAL WICK OILING—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
IMPROVED — Automatic alcohol blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
IMPROVED—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
IMPROVED — Drill chucks. Westcott Chuck Co., Oneida, N. Y.
IMPROVED — Lubricators. Consolidated Brass Co., Detroit, Mich.
IMPROVED FOUNDRY—Electric and belt driven grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
IMPROVED PYRAMID—Horizontal, double-acting piston pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
IMPULSE—Steam traps. Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.
IN-BILT—Exhaust fan. Victor Electric Products, Inc., Cincinnati, Ohio.
INCASED STEELKOTE—Paint for steel encased in concrete. Vita-Var Corp., Newark, N. J.
INCO—Monel metal and nickel. The International Nickel Co., New York, N. Y.
INCOMPARABLE—Independent chucks. The Cushman Chuck Co., Hartford, Conn.
INDEPENDENCE—Packing. Home Rubber Co., Trenton, N. J.
INDEPENDENT—Drill presses. Rockford Machine Tool Co., Rockford, Ill.
INDEPENDENT—Sight feed lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
INDESTRUCTIBLE — Conveyor belting, hose and packing. New York Belting & Packing Co., Passaic, N. J.
INDESTRUCTIBLE—File and tool handles. J. L. Osgood Machinery & Tool Co., Inc., Buffalo, N. Y.
INDESTRUCTIBLE—Steel gongs or bells. P. Wall Mfg. Supply Co., Pittsburgh, Pa.
INDESTRUCTO—Truck casters. Divine Brothers Co., Utica, N. Y.
INDIA—Oil stones. Behr-Manning Corp., (Norton Abrasives), Troy, N. Y.
INDIAN CHIEF—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
INDIAN RED—Belting and packing. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
INDIAN TAN — Lace leather and cut lacing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
INDIANA—Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
INDO—Roof coating. American Asphalt Paint Co., Chicago, Ill.
INDUSTRIAL—Wrenches and tools. Bonney Forge & Tool Works, Allentown, Pa.
INDUSTRIAL TYPE—Speed reducers. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
INGACLAD—Stainless clad steel. Ingersoll Steel & Disc Co., Newcastle, Ind.
INGALLS—Tube scraper and combination tube scraper and brush. A. W. Chesterton Co., Boston, Mass.
INGALLS IMPROVED—Boiler tube cleaner. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
INGERSOLL-RAND — Pneumatic drills, hammers, grinders, air compressors, etc. Ingersoll-Rand Co., New York, N. Y.
INGERSOLL SPECIAL—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
INGHAM—Drag scrapers. Lansing Co., Lansing, Mich.
INLAND COPPER ALLOY—Bars, plates, shapes and sheets. Inland Steel Co., Chicago, Ill.
INLAND FOURWAY—Floor plates. Inland Steel Co., Chicago, Ill.
INLAND HISTEEL—Bars, plates, shapes and sheets. Inland Steel Co., Chicago, Ill.
INNER-CORD — Stitched canvas belting. W. E. Hettrick & Son, Inc., Toledo, Ohio.
INNERDUCK—Combination of leather and fabric belting. The Hettrick Mfg. Co., Toledo, Ohio.
INSPIRATION—Elevator belting. New York Belting & Packing Co., Passaic, N. J.
INSTANT BELT CLEANER—Dirt and grease remover. F. Raniville Co., Grand Rapids, Mich.
INSUL—Canvas belting. The Raniville Co., Grand Rapids, Mich.
INSULAG — Plastic furnace insulation. Quigley Co., Inc., New York, N. Y.
INSULATED SAHARA—Fabric belting. Imperial Belting Co., Chicago, Ill.
INSULBLOX—Refractory block insulation. Quigley Co., Inc., New York, N. Y.
INSULBOND—Bonding mortar. Quigley Co., Inc., New York, N. Y.
INSULBRIX—Refractory brick. Quigley Co., Inc., New York, N. Y.
INSULCLAD—Surfacing mortar. Quigley Co., Inc., New York, N. Y.
INSULCRETE—Insulating refractory concrete. Quigley Co., Inc., New York, N. Y.
INSULINE—Aggregate. Quigley Co., Inc., New York, N. Y.
INSULITH—Exterior surfacing mortar. Quigley Co., Inc., New York, N. Y.
INSULOK CROWNEE—Bolt, nut and screw caps. The Rawlplug Co., Inc., New York, N. Y.
INSWELL ELECTRIC WELD—Coil and cable chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
INTERCHANGE—Friction pulley clutches and cutoff couplings. Kinney Manufacturing Co., Boston, Mass.
INTERNATIONAL—Belting, hose and packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
INVADER — Transmission belting and sheet packing. The Republic Rubber Co., Youngstown, Ohio.
INVINCIBLE—Barbed wire. Bethlehem Steel Co., Bethlehem, Pa.
INVINCIBLE—Mechanical oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
IRENEW—Globe, angle and check valves. The Wm. Powell Co., Cincinnati, Ohio.
IRON CLAD—Brooms. The Osborn Manufacturing Co., Cleveland, Ohio.
IRON CLAD—Conveyor belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
IRON FRIEND—Flux. Federated Metals Corp., New York, N. Y.
IRON HORSE—Cans, pails, shovels, etc. Rochester Can Co., Rochester, N. Y.
IRONCLAD—Goggles. Chicago Eye Shield Co., Chicago, Ill.
IROVERSO—Iron body nickel seat valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
IWANA—Hair belting. Fenwick-Reddaway Mfg. Co., Newark, N. J.

J

J. & B.—Filing and sawing machinery. La Porte Machine & Tool Co., La Porte, Ind.
J. K.—Non-loading taps. Greenfield Tap & Die Corp., Greenfield, Mass.
JKL — Universal scraper for cleaning walks, floors, edging, etc. JKL Manufacturing Co., Rockford, Ill.
J-M—Packing, gaskets, insulation and other asbestos products. Johns-Manville, New York, N. Y.
JMC—Expansion reamers. Scully Steel & Iron Co., Chicago, Ill.
JACK—Scrub brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JACK FROST—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
JACKBITS—Detachable rock drill bits. Ingersoll-Rand Co., New York, N. Y.
JACKHAMER—Hammer drills. Ingersoll-Rand Co., New York, N. Y.
JACKLIFT—Lift trucks. Lewis-Shepard Co., Watertown Sta., Boston, Mass.
JACKSON—Belt fasteners. Isaac Jackson Belt Fastener Co., Inc., New York, N. Y.
JACKSON—Concrete carts, wheelbarrows, mortar pans and drag scrapers. Jackson Manufacturing Co., Harrisburg, Pa.
JACOBS CHUCKS—Chucks. The Jacobs Manufacturing Co., Hartford, Conn.
JADE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
JAHNS—Engine governors. Massey Machine Co., Watertown, N. J.
JAK-TUNG—Factory trucks. Link-Belt Co., Chicago, Ill.
JARVIS-BIAX—Flexible shafts and machines and tapping attachments. Chas. L. Jarvis Co., Gildersleeve, Conn.
JENARCO—Sheet packing. Jenkins Bros., New York, N. Y.
JENKINS—Valves. Jenkins Bros., New York, N. Y.
JENKINS '96—Black, unvulcanized sheet packing. Jenkins Bros., New York, N. Y.
JEROME-TYPE — Metallic packings. Northern Metallic Packing Co., St. Paul, Minn.
JERRY—Scrub brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JETAL—Black finish for iron and steel products. Hanson-Van Winkle-Munning Co., Matawan, N. J.
JEWEL—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
JEWELL—Steel belt hooks. Jewell Belt Hook Co., Naugatuck, Conn.
JEWELL POTTER—Belt hooks. Jewell Belt Hook Co., Naugatuck, Conn.
JEWETT—Packings and gaskets. Johns-Manville, New York, N. Y.
JIM—Scrub brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JO-CHROME — Flat leather belting chrome. Johnson Belting Co., New York, N. Y.
JOBECO—Round and flat leather belting. Johnson Belting Co., New York, N. Y.
JOPACO—Asphalt roofing and asbestos fiber roof coating. Jos. C. Paulus & Co., Philadelphia, Pa.
JORGENSEN — Hand screws, steel bar clamps and drop forged C clamps. Adjustable Clamp Co., Chicago, Ill.
JOY—Air hose couplers. H. D. Edwards & Co., Detroit, Mich.
JOYCE—Jacks and lifts. The Joyce-Cridland Co., Dayton, Ohio.
JUBILEE—Hose. New York Belting & Packing Co., Passaic, N. J.
JUDSON—Hose. Goodall Rubber Co., Philadelphia, Pa.
JUMBO—Blower and suction device. Ideal Commutator Dresser Co., Sycamore, Ill.
JUMBO—Butcher block brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JUMBO—Gasoline and kerosene stationary engines. Nelson Bros. Co., Saginaw, Mich.
JUMBO—Hose and belting. Home Rubber Co., Trenton, N. J.
JUMBO—Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
JUNIATA—Axes, hatchets, etc. The Collins Co., Collinsville, Conn.
JUNIOR—Lanterns. R. E. Dietz Co., New York, N. Y.
JUNIOR—Lubricator. The Lunkenheimer Co., Cincinnati, Ohio
JUNIOR—Stub lathe. Sundstrand Machine Tool Co., Rockford, Ill.
JUNIOR-X-TRACK TOR—Car unloaders and bucket loaders. The Jeffrey Manufacturing Co., Columbus, Ohio.
JUPITER—Hose. The B. F. Goodrich Co. Akron, Ohio.
JUSTATE—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
JUSTRITE—Non-explosive gas cans, oily waste cans, push clips, etc. Justrite Manufacturing Co., Chicago, Ill.
JUSTRITE—Spray nozzle. W. D. Allen Mfg. Co., Chicago, Ill.

K

K—Cast iron pipe fillings. Kuhns Brothers Co., Dayton, Ohio.
K.C.—Ice can filler. E. L. Miller Mfg. Co., Kansas City, Mo.
K-C—Electric grinders and motors. Kingston-Conley Electric Co., North Plainfield, N. J.
"K & J"—Wheelbarrows and trucks. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
K-MASTER—Inverted bucket steam traps and strainers. Kaye & McDonald, Inc., West Orange, N. J.
K.M.C.—Bolt clamps. Kelly Machinery Co., Chicago, Ill.
K-O—Leather belting. The Eagle Counter & Leather Co., Cincinnati, Ohio.
K.O—One revolution clutch. Conway Clutch Co., Cincinnati, Ohio.
K. U.—Packings and gaskets. Johns-Manville, New York, N. Y.
K & T—Automatic valves. Klipfel Manufacturing Co., Chicago, Ill.
KABLE KORD—Belting. L. H. Gilmer Co., Tacony, Philadelphia, Pa.
KAKTUS KID—Mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
KALBER KASTER—Casters. The Hamilton Caster Mfg. Co., Hamilton, Ohio.
KANKA—Roof coating. American Asphalt Paint Co., Chicago, Ill.
KANT RUST—A penetrating graphite lubricant. Ideal Commutator Dresser Co., Sycamore, Ill.
KANTARK—Non-renewable fuses. Trico Fuse Mfg. Co., Milwaukee, Wis.
KAOLIN—Fire clay brick. General Refractories Co., Philadelphia, Pa.
KARBONITE—Sheet packings. New York Belting & Packing Co., Passaic, N. J.
KARNS—Valve cups. Parker Cup & Specialty Works, Parkers Landing, Pa.
KARROPAK—Treated paper packing material. Felt Products Mfg. Co., Chicago
KAST SET—Castable refractory. A. P. Green Fire Brick Co., Mexico, Mo.
KATCHALL—Waste barrels. Fibre Specialty Mfg. Co., Kennett Square, Pa.
KATHODE—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
KEARNEY & FOOT—Files and rasps. Nicholson File Co., Providence, R. I.
KEARSARGE — Packings and gaskets. Johns-Manville, New York.
KEEP-IT-TITE — Valve stem packing. Home Rubber Co., Trenton, N. J.
KEFRAKTO — Granular refractory for surface coating. Keystone Refractories Co., New York, N. Y.

KELLER—Pneumatic tools. Chicago Pneumatic Tool Co., New York, N. Y.
KELLOGG NO. 7 BLACK — Protective coating for metal. Kellogg Products Co., New York, N. Y.
KELLOGG NO. 9 VEHICLE—Black anti-corrosive vehicle for aluminum paint. Kellogg Products Co., New York, N. Y.
KELLY-DURO—Air hose couplings. Kelly Machinery Co., Chicago, Ill.
KENNETT—Cans, barrels, trucks, etc. Fibre Specialty Mfg. Co., Kennett Square, Pa.
KENSINGTON—Leather belting. Jos. C. Paulus & Co., Philadelphia, Pa.
KERN—Hoists. Construction Machinery Co., Waterloo, Iowa.
KEWANEE 400—Unions. Walworth Company, New York, N. Y.
KEY—Graphite paste. Key Co., East St. Louis, Ill.
KEY-TITE—Pipe joint compound. Key Co., East St. Louis, Ill.
KEYSTONE—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
KEYSTONE — Axes, hatchets, etc. The Collins Co., Collinsville, Conn.
KEYSTONE — Canvas stitched belting. Manheim Mfg. & Belting Co., Manheim, Pa.
KEYSTONE—Chain hoists. The Harrington Co., Philadelphia, Pa.
KEYSTONE—Expansion shields. Diamond Expansion Bolt Co., Inc., Garwood, N. J.
KEYSTONE—Hand saws and home workshop saws and tools. Henry Disston & Sons, Inc., Tacony, Philadelphia, Pa.
KEYSTONE—Lubricants. Keystone Lubricating Co., Philadelphia, Pa.
KEYSTONE—Spring and lock washers. The Positive Lock Washer Co., Newark, N. J.
KEYSTONE—Vises. Hollands Mfg. Co., Erie, Pa.
KEYSTONE—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
KEYSTONE TYPE — Steel split pulleys. Dodge Manufacturing Corp., Mishawaka, Ind.
KHASIA—Emery. Keystone Emery Mills, Philadelphia, Pa.
KILINDO-NON ROTATING—Wire rope. Macwhyte Co., Kenosha, Wis.
KING—Hose couplings and clamps. Dixon Valve & Coupling Co., Philadelphia, Pa.
KING—Leather belting and packing. Detroit Oak Belting Company, Detroit, Mich.
KING OF CLAMPS — Hose clamps. Clamps, Inc., Brooklyn, N. Y.
KING-CLIP—Gate valves. The Lunkenheimer Co., Cincinnati, Ohio.
KINGHORN—Pump valves. U. S. Indestructible Gasket Co., Brooklyn, N. Y.
KINGS—Axes, hatchets, etc. The Collins Co., Collinsville, Conn.
KIP—Brushes. Midwest Broom Manufacturing Co., Circleville, Ohio.
KISKI—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
KISMET ALLOY—Bronze bushing stock. Atlas Brass Foundry, Los Angeles, Calif.
KITE—Tool handles. American Handle Co., Jonesboro, Ark.
KLEEN-KUT—Files and rasps. Carson-Newton Co., Newark, N. J.
KLEEN-KUT—Paste grinding compound and soluble oil. D. A. Stuart Oil Co., Chicago, Ill.
KLEENAIR—Respirators, helmets and hoods. The Safety Equipment Service Co., Cleveland, Ohio.
KLEERVU — Gauge glass protectors. Wright-Austin Co., Detroit, Mich.
KLENZO—Washing powder. Ensign Products Co., Cleveland, Ohio.
KLERO—Pump packing. Greene, Tweed & Co., New York, N. Y.
KLINGERIT—Compressed asbestos, sheet packing and gaskets. U. S. Indestructible Gasket Co., Brooklyn, N. Y.
KLINGTITE—Farm belting. The Goodyear Tire & Rubber Co., Inc., Akron, O.
KLIPLOK—Fuse test and ground clamps. Trico Fuse Mfg. Co., Milwaukee, Wis.
KNIFE HANDLE—Wrenches. Bemis & Call Co., Springfield, Mass.
KLOSE-KUT—Hack saws. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
KNOT KLIPPER—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
KNOX—Clamps, couplings, cocks, valves, etc. Knox Mfg. Co., Philadelphia, Pa.
KOHINOOR—Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
KONGO—Brooms. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
KONCREX—Cement floor paint. A. C. Horn Co., Long Island City, N. Y.
KONTAX-CHROME — Leather belting. Geo. Rahmann & Co., New York, N. Y.
KORODLESS—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
KORTLANDT—Rubber belting, packing and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
KOSMIC—Bearing metal. Magnolia Metal Co., Elizabeth, N. J.
KOTE-RAX—Protective covering for plating racks. Hanson-Van Winkle-Munning Co., Matawan, N. J.
KROMAX — Leather packings. Watson-Stillman Co., Roselle, N. J.
KROME—Belting, belt butts, lace leather, cut lacing, packing discs, leather check valves, plunger washers, fan belts, etc. The Chicago Rawhide Mfg. Co., Chicago.
KROMEPATCH—Dry chrome ore cement. E. J. Lavino & Co., Philadelphia, Pa.
KROMIDE—Red lead preservative. A. C. Horn Co., Long Island City, N. Y.
KROMOXE-COMBINATION — Leather belting. Geo. Rahmann & Co., New York.
KRON—Scales. The Kron Co., Bridgeport, Conn.
KRONA—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
KRUMITE—Fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
KWALITY KASTER—Casters. The Hamilton Caster Mfg. Co., Hamilton, Ohio.
KWART-KWICK—Barrel pumps. Viking Pump Co., Cedar Falls, Iowa.
KWIK-KUT—Power hack saw machine. E. C. Atkins and Co., Indianapolis, Ind.
KYMOI—Rubber packing. Crandall Packing Co., Palmyra, N. Y.

L

L. A.—Electric motors and generators. The Louis Allis Co., Milwaukee, Wis.
LMW—High-speed steel. Ludlum Steel Co., Watervliet, N. Y.
L & N—Electrical measuring instruments, furnaces, etc. Leeds & Northrup Co., Philadelphia, Pa.
L & P—Graphite products. Joseph Dixon Crucible Co., Jersey City, N. J.
LP—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
L-R—Flexible couplings. Lovejoy Tool Works, Chicago, Ill.
L.R.D.—Bronze valves. Grinnell Co., Inc., Providence, R. I.
LSD—Alloy tool steel. Ludlum Steel Co., Watervliet, N. Y.
LX COMPOSITION — Wire belt lacing. Manufacturers' Belt Hook Co., Chicago.
L-XX—High speed steel. Ludlum Steel Co., Watervliet, N. Y.
LA FRANCE—Fire department and safety supplies. American-LaFrance and Foamite Corp., Elmira, N. Y.
LA BELLE SLOW TEMPERED—Agricultural discs. Crucible Steel Co. of America, New York, N. Y.
LACROSSE—Belting. Goodall Rubber Co., Philadelphia, Pa.
LAIDLAW—Air, gas and ammonia compressors. Worthington Pump and Machinery Corp., Harrison, N. J.
LAMINUM—Shims and shim stock. Laminated Shim Co., Inc., Long Island City, N. Y.
LANDAHL—Back stops, conveyor. Fairfield Engineering Co., Marion, Ohio.
LANE—Door hangers, tackle blocks and overhead carrier systems, etc. Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
LANGDON—Mitre boxes. Millers Falls Co., Greenfield, Mass.
LANO FINISH—Leather belt dressing. F. Raniville Co., Grand Rapids, Mich.
LANWADE—Shovel barrow. Shovel-Barrow Co., Chicago, Ill.
LAWSON—Wood pulleys, hand trucks and paper mill supplies. Menasha Wood Split Pulley Co., Menasha, Wis.
LAY-SET—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
LEA-SIMPLEX—Saws. The Earle Gear & Machine Co., Philadelphia, Pa.
LEADER—Die stocks. The Oster Manufacturing Co., Cleveland, Ohio.
LEADER—Sand suction and steam hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
LEADER—Soldering sets. Wm. L. Barrett Co., Bristol, Conn.
LEATHER-TO-METAL—Belting cement. F. Raniville Co., Grand Rapids, Mich.
LEBANCO—Carriage, machine and lag bolts. The Lamson & Sessions Co., Cleveland, Ohio.
LECOOK—Rod packing. C. Lee Cook Manufacturing Co., Inc., Louisville, Ky.
LECTROGRINDER — Swing frame grinder. Pittsburgh Engineering Works, Pittsburgh, Pa.
LEECHBURG — Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
LEHIGH—Leather belting. Charles Bond Co., Philadelphia, Pa.
LEN MAR — Water and steam proof leather belting. Jerry Bros. Belting Co., Richmond, Va.
LENOX—Conveyor belting. Russell Manufacturing Co., Middletown, Conn.
LENOX—Fire hose. New York Belting & Packing Co., Passaic, N. J.
LENOX—Hack and band saws, screw drivers and glass cutters. American Saw & Mfg. Co., Springfield, Mass.
LES NOIS—Steel truck casters. Bond Foundry & Machine Co., Manheim, Pa.
LEVIATHAN — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
LEVOLIER—Switch brackets and sockets. McGill Manufacturing Co., Valparaiso, Ind.
LEWIS—Flow detectors. Central Automatic Sprinkler Co., Philadelphia, Pa.
LEY-BUSHED — Chain. Link-Belt Co., Chicago, Ill.
LIBERT HI SPEED SHEAR—Sheet metal cutting shear. Libert Machine Co., Green Bay, Wis.
LIBERTY—Drinking fountain equipment. Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
LIBERTY — Motor babbitt. Federated Metals Corp., New York, N. Y.
LIBERTY—Packings and gaskets. Johns-Manville, New York, N. Y.
LIBERTY—Protective paints and roof coatings. Carter Paint Co., Liberty, Ind.
LIBERTY MOTOR GENUINE — Motor bearing metal. Federated Metals Corp., New York, N. Y.
LIFE-TIME—Belt idlers. Fairfield Engineering Co., Marion, Ohio.
LIFETIME — Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
LIFETIME — Welding torches. Smith Welding Equipment Corp., Minneapolis, Minn.
LIFT — Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LIFTABOUT—Light weight hoists. David Round & Son, Cleveland, Ohio.
LIGHT SERVICE—C-Clamps. J. H. Williams & Co., New York, N. Y.
LIGHTENING—Silk yacht lariat rope. St. Louis Cordage Mills, St. Louis, Mo.
LIGHTNING—Air pressure pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
LIGHTNING—Belting. Home Rubber Co., Trenton, N. J.
LIGHTNING—Hose clamps. Harrisburg Stamping Co., Harrisburg, Pa.
LIGHTNING—Hose couplings. Handlan-Buck Mfg. Co., St. Louis, Mo.
LIGHTNING—Sandpaper, cloth and combination. Behr-Manning, Corp., Troy, N. Y.
LIGHTNING — Snow pushers. Wirt & Knox Mfg. Co., Philadelphia. Pa.
LIGHTNING—Twist drills. Greenfield Tap & Die Corp., Greenfield, Mass.
LIGHTNING LIFT — Hydraulic service jacks. Blackhawk Manufacturing Co., Milwaukee, Wis.
LIGHTWELD—Welding electrodes. The Lincoln Electric Co., Cleveland. Ohio.
LILY WHITE WASHITA — Oilstones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
LIMESTONE—Wood split and wood motor pulleys. Ohio Valley Pulley Works, The, Division Browning Mfg. Co., Inc., Maysville, Ky.
LINCWELD—Motors. The Lincoln Electric Co., Cleveland, Ohio.
LINDE — Oxygen, nitrogen, argon, neon and helium. The Linde Air Products Co., Unit of Union Carbide & Carbon Corp., New York, N. Y.
LINDSTROM—Wire cutters, nippers, pincers and pliers. Hammel, Riglander & Co., Inc., New York, N. Y.
LINE OF MINE — Packings. New York Belting & Packing Co., Passaic, N. J.
LINE PIPE—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
LINK-BELT — Materials handling and power transmission machinery and equipment. Link-Belt Co., Chicago, Ill.
LINK STAR—Tool handles. O. P. Link Handle Co., Salem, Ind.
LION—Conveyor belts. Link-Belt Co., Chicago, Ill.
LION—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
LION—Hose valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LIONITE—Abrasive grains and grinding compound. General Abrasive Co., Inc., Niagara Falls, N. Y.
LIPPERT—Saws and tools. E. T. Lippert Saw Co., Pittsburgh, Pa.
LIQUID COPPER—Paint. National Copper Paint Corp., Chicago, Ill.
LIQUIDIZED TILE — Interior factory paint. Ensign Products Co., Cleveland, Ohio.
LISTOBESTOS — Asbestos listings and tapes. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
LITAN—Grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
LITH—Insulating slab. Union Fibre Sales Co., Winona, Minn.
LITTLE BLACKSMITH (THE)—Punches, shears and angle iron cutters. J. F. Kidder Mfg. Co., Inc., Burlington, Vt.
LITTLE CUT-UP—Electric jig saw. Beebe Bros., Seattle, Wash.

UMI

LITTLE DALLETT—Surfacer. The Dallett Co., Philadelphia, Pa.
LITTLE GIANT — Clamp fixtures and press screws. Adjustable Clamp Co., Chicago, Ill.
LITTLE GIANT—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
LITTLE GIANT—Farrier's tool boxes. B. B. Noyes Co., Greenfield, Mass.
LITTLE GIANT — Hand bench shears. Mohn Machine Co., Reading, Pa.
LITTLE GIANT—Hydraulic presses. The Cardwell Machine Co., Richmond, Va.
LITTLE GIANT—Ice breakers. Micro-Westco, Inc., Bettendorf, Iowa.
LITTLE GIANT—Lanterns. R. E. Dietz Co., New York, N. Y.
LITTLE GIANT—Padlocks. Master Lock Co., Milwaukee, Wis.
LITTLE GIANT—Pneumatic and electric tools. Chicago Pneumatic Tool Co., New York, N. Y.
LITTLE GIANT—Punches, shears and combined tools. T. J. Gundlach Machine Co., Belleville, Ill.
LITTLE GIANT—Screw plates, dies, die stocks, etc. Greenfield Tap & Die Corp., Greenfield, Mass.
LITTLE GIANT Jr.—Screw plates and die stocks. Greenfield Tap & Die Corp., Greenfield, Mass.
LITTLE WIZARD—Roller bearing hoists. David Round & Son, Cleveland, Ohio.
LITTLE WIZARD—Lanterns. R. E. Dietz Co., New York, N. Y.
LIVE OAK—Leather belting. The Eagle Counter & Leather Co., Cincinnati, Ohio.
LIVE OAK—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco.
LOCRO—Chrome. Crucible Steel Co. of America, New York, N. Y.
LO-HEAD—Hoists. American Engineering Co., Philadelphia, Pa.
LO-SPEED—Band saws. Delta Manufacturing Co., Milwaukee, Wis.
LOAD LIFTER—Electric hoists. Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
LOCK CRIMP—Wire cloth. Newark Wire Cloth Co., Newark, N. J.
LOCK LINK—Coil chain specialties. American Chain Co., Inc., Bridgeport, Conn.
LOCK-ON—Socket wrench feature. Blackhawk Mfg. Co., Milwaukee, Wis.
LOCUST—Leather belting. W. S. Nott Co., Minneapolis, Minn.
LODI—Belt punches. The Wm. Schollhorn Co., New Haven, Conn.
LOK CROWNER—Caps for sealing, concealing and decorating screw heads, bolts, nuts, etc. The Rawlplug Co., Inc., New York, N. Y.
LONG LIFE—Hose. Whitehead Bros. Rubber Co., Trenton, N. J.
LONG-LIFE—Industrial aprons. The M. F. Murdock Co., Akron, Ohio.
LONG LIFE—Turned hardwood products. Lignum-Vitae Products Corp., Jersey City, N. J.
LONGLIFE—Belting. The B. F. Goodrich Co., Akron, Ohio.
LONGLIFE—Roof cement. Flexrock Co., Philadelphia, Pa.
LOOMAN—Water filters. Loomis-Manning Filter Manufacturing Co., Philadelphia, Pa.
LOOMIS-MANNING—Water filters. Loomis-Manning Filter Manufacturing Co., Philadelphia, Pa.
LOONTEE—Sander brushes. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
LOSANT—Conveyor belting, hose and diaphragm sheet packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
LOTENS—Grinding wheels. Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.
LOW DOWN—Tank and spray pumps. The F. E. Myers & Bro. Co., Ashland, Ohio.
LOW HEAD—Vibrating screens. Allis-Chalmers Manufacturing Co., West Allis, Wis.
LOXIN—Machine bolt and screw expansions. Star Expansion Bolt Co., New York, N. Y.
LOXON—Wire lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
LUBALL—Lubricant. Crandall Packing Co., Palmyra, N. Y.
LUBRA—Gaskets, packing, washers, etc. Western Packing & Supply Co., Chicago, Ill.
LUBRI HIDE—Gear lubricant. The Chicago Rawhide Mfg. Co., Chicago, Ill.
LUBRI-TASGON—Penetrating oil. The Wilbur & Williams Co., Boston, Mass.
LUBRICO—Bronze bars. The Buckeye Brass & Mfg. Co., Cleveland, Ohio.
LUBRICOAL—Motor oil. American Oil & Grease Corp., Chicago, Ill.
LUBRICO PREMIER—Bronze bars. The Buckeye Brass & Mfg. Co., Cleveland, O.
LUBRICORE—Metallic stuffing box packing. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
LUBRIGUN—Power lubrication equipment. Stewart-Warner Corp., Alemite Division, Chicago, Ill.
LUBRIPLATE — Lubricants. Lubriplate Division, Fiske Brothers Refining Co., New York, N. Y.
LUBRITE — Self lubricating bushings. Merriman Bros., Inc., Boston, Mass.
LUBROSEAL—Rubber lubricating and sealing compound. The B. F. Goodrich Co., Akron, Ohio.
LUBROTITE—Valves. Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
LUCK-E-LITE — Motor flares. Embury Manufacturing Co., Warsaw, N. Y.
LUFKIN—Measuring tapes, rules, precision or machinists' tools. The Lufkin Rule Co., Saginaw, Mich.
LUPT—Slip ring grinder. Ideal Commutator Dresser Co., Sycamore, Ill.
LUMA — Marking tools. Luma Electric Equipment Co., Toledo, Ohio.
LUMINO — Aluminum Paint. Koppers Products Co., Pittsburgh, Pa.
LUMMIT—Copper asbestos gaskets. Akron Metallic Gasket Co., Akron, Ohio.
LUMNITE—White interior factory paint. The Reardon Co., St. Louis, Mo.
LUNAR—Paint. Otley Paint Mfg. Co., Chicago, Ill.
LUNKENHEIMER—Valves and engineering appliances. The Lunkenheimer Co., Cincinnati, Ohio.
LUX—Fire extinguishers. Walter Kidde & Co., Inc., Bloomfield, N. J.
LUX-O-MATIC — Automatic fire extinguishing system. Walter Kidde & Co., Inc., Bloomfield, N. J.
LUZERNE—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LYMPIC GREEN STRAND—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
LYNX — Belting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LYON—Steel shop equipment. Lyon Metal Products, Inc., Aurora, Ill.
LYONORE—Metal products. Lyon Conklin & Co., Inc., Baltimore, Md.
LYTESTRONG—Steel shaft hangers. Bond Foundry and Machine Co., Manheim, Pa.

M

M—Bolts, nuts, rivets, rods, etc. The Milton Manufacturing Co., Milton, Pa.
M—Leather belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
McC. SPECIAL—Leather belting. McCauley Belting Co., Chicago, Ill.
McCAFFREY—Files and rasps. Nicholson File Co., Providence, R. I.
McCLELLAN—Files and rasps. Nicholson File Co., Providence, R. I.
McELMOYL BASKET—Bags, baskets and trucks. W. J. McElmoyl & Co., Inc., Groveville, N. J.
McKAY—Valves for high pressure gas cylinders. The Linde Air Products Co., Unit of Union Carbide and Carbon Corp., New York, N. Y.
M.B.C. — Swing check valves. Messmer Brass Co., St Louis, Mo.
M. D. CO.—Rotary pumps. Mechanical Devices Co., Bloomington, Ill.
MIP—Pipe fittings and pole line hardware. Malleable Iron Fittings Co., Branford, Conn.
ML—High speed steel. Ludlum Steel Co., Watervliet, N. Y.
MLP—Packing. Michigan Leather Packing Co., Inc., Detroit, Mich.
M & M—Boiler feeders and water level regulators. McDonnell & Miller, Chicago, Ill.
M & M—Hogs, chippers and shredders. Mitts and Merrill, Saginaw, Mich.
M-P—Washers. The Master Products Co., Cleveland, Ohio.
M-S-A—Safety equipment. Mine Safety Appliances Co., Pittsburgh, Pa.
McDANIEL—Valves, strainers, regulators, etc. Watson & McDaniel Co., Philadelphia, Pa.
McFEELY—Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
McGREGOR—Gauge glasses. A. W. Chesterton Co., Boston, Mass.
Mc KAY—Chains. The Mc Kay Co., Pittsburgh, Pa.
McKIM—Gaskets. McCord Radiator & Mfg. Co., Detroit, Mich.
McKNIGHT — Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
McWANE—Cast iron pipe. Pacific States Cast Iron Pipe Co., Provo, Utah.
MABBS—Rawhide and hydraulic packing and rawhide washers. Mabbs Hydraulic Packing Co., Chicago, Ill.
MABCO—Leather belting and dressing. MacWatty Belting Co., Providence, R. I.
MAC (THE)—Grinders. The McGonegal Mfg. Co., East Rutherford, N. J.
MAC-IT—Screws and bolts. The Strong, Carlisle & Hammond Co., Cleveland, O.
MACK—Rivet set clips. Lovejoy Tool Works, Chicago, Ill.
MACOAK — Leather belting, check and loom straps. McLeod Leather & Belting Co., Greensboro, N. C.
MAFORCO—Steel trucks, racks, etc. Market Forge Co., Everett, Mass.
MAGAZINE — Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, O.
MAGIC—Garden and water hose and rod packings. New York Belting & Packing Co., Passaic, N. J.
MAGIC—Pattern rule. The Lufkin Rule Co., Saginaw, Mich.
MAGNET—Packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
MAGNOLIA—Bronze bars and anti-friction metal. Magnolia Metal Co., Elizabeth, N. J.
MAGNUS—Hose. Hewitt Rubber Corp., Buffalo, N. Y.
MAHR — Industrial furnaces. Diamond Iron Works, Inc., Minneapolis, Minn.
MAJESTIC—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
MAJOR—Lubricator. The Lunkenheimer Co., Cincinnati, Ohio.
MAKE-SHUR—Thread button set, for making blind holes. National Machine Tool Co., Racine, Wis.
MALABAR—Industrial belting. The Hettrick Mfg. Co., Toledo, Ohio.
MALACCA—Liquid & plastic rubbers. Manson Glover, Stoughton, Mass.
MALL — Flexible shaft tools, grinders, portable saws, etc. Mall Tool Co., Chicago, Ill.
MALTESE CROSS — Hose and belting. Hewitt Rubber Corp., Buffalo, N. Y.
MAN SIZE—Steam traps. The V. D. Anderson Co., Cleveland, Ohio.
MANGANWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
MANHATTAN — Belting, hose, molded goods, rubber covered rolls and tanks. The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N.J.
MANHATTAN—Water filters. Loomis-Manning Filter Manufacturing Co., Philadelphia, Pa.
MANIERRE—Box car loaders. Link-Belt Co., Chicago, Ill.
MANLEY — Service station equipment. Manley Manufacturing Div. of American Chain Co., Inc., York, Pa.
MANTEX — Fire hose. The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J.
MARATHON O. K.—Electric motors, fans, grinders, buffers, etc. Marathon Electric Manufacturing Corp., Wausau, Wis.
MARCO—Belting, hose, dredging sleeves, friction and splicing tape. The Mechanical Rubber Co., Passaic, N. J.
MARINE — Brass and bronze bushings. Prier Brass Mfg. Co., Kansas City, Mo.
MARINE — Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
MARINE — Waterproof leather belting. McCauley Belting Co., Chicago, Ill.
MARK—Carriage makers' clamps, "C," boiler, welders' and machinists' clamps. Adjustable Clamp Co., Chicago, Ill.
MARKAL—Paint, paint sticks. Helmer & Staley, Chicago, Ill.
MARKERILL—Marking devices. Henry Moss & Co., Inc., Brooklyn, N. Y.
MARKSITE — Magnesite brick. General Refractories Co., Philadelphia, Pa.
MARSH-CAPRON—Concrete mixers and contractors' portable saw tools. Construction Machinery Co., Waterloo, Iowa.
MARSHALLTOWN—Trowels, chisels, bricklayers' sets and tools. Marshalltown Trowel Co., Marshalltown, Iowa.
MARTELL—Adjustable reamers. Taft-Pierce Mfg. Co., Woonsocket, R. I.
MARTELL—Packings. The France Packing Co., Tacony, Philadelphia, Pa.
MARTIN—Portable vise stands and pipe benders. H. P. Martin & Sons, Owensboro, Ky.
MARVEL—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
MARVEL—Blowers, exhausters and exhaust fans. Electric Blower Co., Boston, Mass.
MARVEL—Grinders. Chicago Pulley & Shafting Co., Chicago, Ill.
MARVEL—Hack and band saw machines and blades, hole saws, punches and shears, tapping machines, hack saw frames, drill press vises, etc. Armstrong-Blum Mfg. Co., Chicago, Ill.
MARVEL—Oil pumps. The Lunkhenheimer Co., Cincinnati, Ohio.
MARVEL — Pocket tapes. The Lufkin Rule Co., Saginaw, Mich.
MARVEL — Pumps and water systems. The Deming Co., Salem, Ohio.
MARVELETTE—Pumps and water systems. The Deming Co., Salem, Ohio.
MARVELOUS—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
MARVEX—Asphalt paint. American Asphalt Paint Co., Chicago, Ill.
MASCO—Mops, wiping cloths, waste, etc. Massasoit Mfg. Co., Fall River, Mass.

MASON—Condensation meters. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
MASSACHUSETTS — Fans, blowers and unit heaters. The Bishop & Babcock Sales Co., Cleveland, Ohio.
MASTER—Friction clutches and hoists. Moore-Master Mfg. Co., Chicago, Ill.
MASTER—Hand tool grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
MASTER—Hose, belting, etc. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
MASTER—Mixers. Construction Machinery Co., Waterloo, Iowa.
MASTER—Socket head cap screws and set screws. Hartford Machine Screw Co., Hartford, Conn.
MASTER—Spray guns and compressors. Burning Brand Co., Chicago, Ill.
MASTER — Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
MASTER—Unions. Lockport Fittings Co., Inc., Lockport, N. Y.
MASTER ANTIFRICTION — Babbitt metal. Murphy Metals Co., Chicago, Ill.
MASTER LINE — Blow torches. The Turner Brass Works, Sycamore, Ill.
MASTER METAL—Babbitt. United American Metals Corp., Brooklyn, N. Y.
MASTER (# 5)—Grinders. The Dumore Co., Racine, Wis.
MASTER PILOT—Iron body gate valves. The Wm. Powell Co., Cincinnati, Ohio.
MASTER ROTARY SCRAPER — Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
MASTER TOOLMAKER—Drill press attachment. C. C. Craley Mfg. Co., Shillington, Pa.
MASTER WHEEL—Wire wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
MASTERENCH — Pipe and ratchet wrenches. Heller Bros. Co., Newark, N. J.
MASTERSAW—Circular saws. The Ohlen-Bishop Co., Columbus, Ohio.
MATCHIT — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
MATCHLESS — I-beam trolleys. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
MATHER—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
MAUREY—Steel V pulleys. Maurey Mfg. Corp., Chicago, Ill.
MAX-EL — Machinery steels. Crucible Steel Co. of America, New York, N. Y.
MAXECON—Belting and hose. The B. F. Goodrich Co., Akron, Ohio.
MAXI—Taps, drills and reamers. Greenfield Tap & Die Corp., Greenfield, Mass.
MAXI-MOTOR—Tool part grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
MAXLIFE—Conveyor belting. The Jeffrey Manufacturing Co., Columbus, Ohio.
MAXTIC—Rubber belt dressing. Norton Belting Co., Wellesley Hills, Mass.
MAYARI—Track bolts. Bethlehem Steel Co., Bethlehem, Pa.
MAYFLOWER — Marine oakum. The Hooven & Allison Co., Xenia, Ohio.
MAZDA CLIMAX — Oil burners. E. L. Miller Mfg. Co., Kansas City, Mo.
MAZIC PROCESS—Zinc plating. Hanson-Van Winkle-Munning Co., Matawan, N. J.
MECHANICAL BLACKSMITH HELPER—Power hammers. Blacker Engineering Corp., New York, N. Y.
MECHANICAL WEIGHMAN — Hopper scales. Merrick Scale Mfg. Co., Passaic, N. J.
MECHANIC'S — Step ladder. Michigan Ladder Co., Ypsilanti, Mich.
MECHANICS' SPECIAL—Hand power tool grinders. Luther Grinder Co., Milwaukee, Wis.
MECO — Burners, conveyors, hoists, screens, etc. The Manufacturers Equipment Co., Dayton, Ohio.
MECO — Regulators, torches, acetylene generators, etc. Modern Engineering Co., St. Louis, Mo.
MEDART—Power transmission machinery and appliances. The Medart Co., St. Louis, Mo.
MEESECO — Friction clutches, oil well countershafts and short center belt drives. Link-Belt Co., Chicago, Ill.
MEIER NU-AIR—Exhaust and ventilating fans. Meier Electric & Machine Co., Indianapolis, Ind.
MERCHANT WATERPLEX—Twine and lathyarn. Whitlock Cordage Co., New York, N. Y.
MERCURY—Electric soldering irons. Vulcan Electric Co., Lynn, Mass.
MERRICK—Wrenches. Bemis & Call Co., Springfield, Mass.
MERRIMACK — Leather belting. Page Belting Co., Concord, N. H.
MERUCO — Compressed asbestos sheet packing. The Mechanical Rubber Co., Passaic, N. J.
MESABA—Chain. S. G. Taylor Chain Co., Hammond, Ind.
METALBAC—Metal gasket design. Victor Mfg. & Gasket Co., Chicago, Ill.
METALBESTOS—Piston packing. A. W. Chesterton Co., Boston, Mass.
METALITE—Sand cloth. Behr-Manning Corporation, Troy, N. Y.
METALLIC—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
METALLIZER—Metal spray guns. Metallizing Co. of America, Inc., Los Angeles, Cal.
METALLIZING EQUIPMENT—Metal spraying equipment. Metallizing Co. of America, Inc., Los Angeles, Calif.
METRIC — Mechanical packing. Hewitt Rubber Corp., Buffalo, N. Y.
METROPOLITAN — Injectors. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
METROPOLITAN—Injectors and ejectors. Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
MEXICAN — Graphite products. The United States Graphite Co., Saginaw, Mich.
MEXIKOMO—Fire brick mortar. A. P. Green Fire Brick Co., Mexico, Mo.
MEXKO—Fire clay brick. A. P. Green Fire Brick Co., Mexico, Mo.
MEXOLINE—Metal polishes. Matchless Metal Polish Co., Chicago, Ill.
MEY-OBORN—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, O.
MEZURALL — Tape-rules. The Lufkin Rule Co., Saginaw, Mich.
MIAMI—Elevator belting. New York Belting & Packing Co., Passaic, N. J.
MIAMI—Oil cups. The Lunkhenheimer Co., Cincinnati, Ohio.
MIBCO—Cast iron threaded pipe. Medina Iron & Brass Co., Medina, N. Y.
MICHIGAN — Lubricators and water gauges. Essex Brass Corp., Detroit, Mich.
MICHIGAN—Chain tapes. The Lufkin Rule Co., Saginaw, Mich.
MICRO—Internal grinders and crank pin grinders. Micro-Westco, Inc., Bettendorf, Iowa.
MICRO-SET — Circular saw-rip fences. Delta Manufacturing Co., Milwaukee, Wis.
MICRO-SET—Saw tables and bench saws. Delta Mfg. Co., Milwaukee, Wis.
MICROFYNE—Graphite products. Joseph Dixon Crucible Co., Jersey City, N. J.
MIDGET—Clutches. The Carlyle Johnson Machine Co., Manchester, Conn.
MIDGET—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
MIDGET—Slide rules. Gilson Slide Rule Co., Stuart, Fla.
MIDGET—Small tool post grinders. Dumore Co., Racine, Wis.
MIDGET—Wrenches. J. H. Williams & Co., New York, N. Y.
MIDWEST WOLVERINE—Coated abrasives and grinding wheels. Mid-West Abrasive Co., Detroit, Mich.
MILBURN—Paint spray, cutting and welding equipment, blow torches, portable carbide lights, etc. The Alexander Milburn Co., Baltimore, Md.
MILECO—Brake lining and blocks and clutch facings. L. J. Miley Co., Inc., Chicago, Ill.
MILFORD — Hack saw and band saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
MILFORD FLEXIBLE—Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
MILFORD MIDGET—Hack saw blades and frames. The Henry G. Thompson & Son Co., New Haven, Conn.
MILL WRIGHT—Step ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
MILLERS FALLS—Hack saw blades. Millers Falls Co., Greenfield, Mass.
MILLER LOCK TITE — Truck brakes. Safety Truck Brake Co., Inc., Appleton, Wis.
MILLER WONDER ARC—Electric welding apparatus. Miller Electric Mfg. Co., Appleton, Wis.
MILTON—Bolts, nuts, rivets, rods, etc. The Milton Manufacturing Co., Milton, Pa.
MILVACO—Brass valves and heating specialties, Milwaukee Valve Co., Milwaukee, Wis.
MILWAUKEE—Industrial brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
MILWAUKEE WROT—Washers. Wrought Washer Mfg. Co., Milwaukee, Wis.
MINE SERVICE—Air cocks. The Lunkenheimer Co., Cincinnati, Ohio.
MINNEAPOLIS — V-buckets. Link-Belt Co., Chicago, Ill.
MINUTE MAN—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.
MIRCS — Burners and furnaces. R. S. Products Corp., Philadelphia, Pa.
MIRICLEAN—Water softeners. Pacific Chemical Co., Los Angeles, Calif.
MISENER—Electric tools, rotary woodworking tools, etc. Misener Mfg. Co., Syracuse, N. Y.
MR. PUNCH—Automatic drill tools. Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
MISSOURI ZINC CO.—Zinc. Federated Metals Corp., New York, N. Y.
MITER-SQUARE—Folding rules. Master Rule Mfg. Co., Inc., New York, N. Y.
MIXFLO—Centrifugal pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
MIZZON—Fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
MOBILENE — Packings and gaskets. Johns-Manville, New York.
MOCCASIN—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
MOCKING BIRD — Steam whistles. The Lunkenheimer Co., Cincinnati, Ohio.
MODEL—Rubber hose. Mulconroy Co., Philadelphia, Pa.
MODEL B—Lathes. Pratt & Whitney Co., Hartford, Conn.
MODEL STAR—Globe, angle, gate and check valves. The Wm. Powell Co., Cincinnati, Ohio.
MODERN HOME — Ash, garbage and refuse cans. The Witt Cornice Co., Cincinnati, Ohio.
MODOC — Belting. Goodall Rubber Co., Philadelphia, Pa.
MOGUL—Leather belting, check and loom straps. McLeod Leather & Belting Co., Greensboro, N. C.
MOGUL—Packings and gaskets. Johns-Manville, New York, N. Y.
MOGUL METALLIZER — Metal spray gun. Metallizing Co. of America, Inc., Los Angeles, Calif.
MOHAWK — Carpenters' tools. Millers Falls Co., Greenfield, Mass.
MOHAWK—Flint paper. Behr-Manning Corp., Troy, N. Y.
MOHAWK—Hose and belt. Hewitt Rubber Corp., Buffalo, N. Y.
MOHAWK — Hot work steel. Ludlum Steel Co., Watervliet, N. Y.
MOISTAT—Humidifying attachment for saw mills. The National Dry Kiln Co., Indianapolis, Ind.
MOLOX—Mechanical joint river crossing pipe. American Cast Iron Pipe Co., Birmingham, Ala.
MOLY—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
MONACO — Drill rods. Pittsburgh Tool Steel Wire Co., Monaca, Pa.
MONARCH BALL METAL — Babbitt metal. Gardiner Metal Co., Chicago, Ill.
MONARCH—Butcher block brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
MONARCH—Crushing, grinding, mixing, elevating, conveying machinery. Sprout, Waldron & Co., Inc., Muncy, Pa.
MONARCH—Hack saw blades and frames. Great Neck Saw Mfrs., Inc., Great Neck, N. Y.
MONARCH—Lanterns. R. E. Dietz Co., New York, N. Y.
MONARCH — Measuring tapes. Eugene Dietzgen Co., Chicago, Ill.
MONARCH—Piston packing. A. W. Chesterton Co., Boston, Mass.
MONARCH—Ratchet drills. Keystone Mfg. Co., Buffalo, N. Y.
MONARCH — Tampico wheels, brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
MONARCH — Transmission belting and hose. Hewitt Rubber Corp., Buffalo.
MONARCH—Wire rope slings. Macwhyte Co., Kenosha, Wis.
MONARCH FEATHERWEIGHT—Shovels, spades and scoops. Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
MONARCH WHYTE STRAND—Wire rope. Macwhyte Co., Kenosha, Wis.
MONCRIEFF — Gage glasses. Jenkins Bros., New York, N. Y.
MONITOR—Car pullers. Stephens-Adamson Mfg. Co., Aurora, Ill.
MONITOR—Steel wire wheels. The Osborn Manufacturing Co., Cleveland, Ohio.
MONNISON — Factory and warehouse trucks. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.
MONO-BILT — Wire wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
MONO-CAST—Centrifugal pipe. American Cast Iron Pipe Co., Birmingham, Ala.
MONO LINE—Plastic fire brick. Quigley Co., Inc., New York, N. Y.
MONO-VEYOR—Elevating machinery. The Jeffrey Manufacturing Co., Columbus, O.
MONOBELT—Leather, belting. Alexander Bros., Inc., Philadelphia, Pa.
MONOBLOC—Centrifugal pumps. Worthington Pump and Machinery Corp., Harrison, N. J.

UMI

MONOTRACTOR — Drive for overhead conveyors. American MonoRail Co., Cleveland, Ohio.
MOON—Grease cups. American Injector Co., Detroit, Mich.
MOORE—I-beam trolleys. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
MOORE—Elevator buckets, bolts, spiral conveyors and accessories. Link-Belt Co., Chicago, Ill.
MOOSE—Belting, hose and matting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
MORAN'S—Belt couplings. Greene, Tweed & Co., New York, N. Y.
MORENCI—Safety belts. E. D. Bullard Co., San Francisco, Calif.
MORSE — Silent chain. Roller chain. Morse Chain Co., Ithaca, N. Y.
MOTEX—Babbitt metals, bearing bronze and solder. Consolidated Metals Corp., Detroit, Mich.
MOTO-PUMP—General service circulating. Yeomans Brothers Company, Chicago, Ill.
MOTOFLAR—Truck flares. Anthes Force Oiler Co., Fort Madison, Iowa.
MOTOR—Garden hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
MOTOR KIT—Pliers. Crescent Tool Co., Jamestown, N. Y.
MOTORFLAKE—Graphite. Superior Flake Graphite Co., Chicago, Ill.
MOTORPUMP—General service pump. Ingersoll-Rand Co., New York, N. Y.
MOUNT GILEAD—Power sprayers. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
MUELLER-COLUMBIAN—Valves, hoists, etc. Columbian Iron Works, Chattanooga, Tenn.
MULCONROY—High pressure couplings. Mulconroy Company, Philadelphia, Pa.
MULE-PULL—Clutches. Brown Engineering Co., Reading, Pa.
MULTI-FLAME—Torches and fire pots. Clayton & Lambert Mfg. Co., Detroit, Mich.
MULTI-OILSTONE — Oilstones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
MULTI-SPEED (#3)—Grinders. The Dumore Co., Racine, Wis.
MULTI-V—Belts. The B. F. Goodrich Co., Akron, Ohio.
MULTI-V-DRIVE—V-belt drives. Worthington Pump and Machinery Corp., Harrison, N. J.
MULTIANGULAR — Metallic packing. Northern Metallic Packing Co., St. Paul, Minn.
MULTICORD—Belts. The B. F. Goodrich Co., Akron, Ohio.
MULTIROL—Full type roller bearings. McGill Mfg. Co., Valparaiso, Ind.
MULTIROLL—Belt conveyor idlers. Link-Belt Co., Chicago, Ill.
MULTIPELLOR—Deep well turbine water pumps. Luitwieler Pumping Engine Co., Rochester, N. Y.
MULTIPLE—Drafting instruments. Gilson Slide Rule Co., Stuart, Fla.
MULTIPLE LAMPLOCK — Lamp locks. Interlocking Products Co., New York, N. Y.
MULTIPLEX—Lubricators. Essex Brass Corp., Detroit, Mich.
MULTIPLEX — Reversible ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
MULTIPLEX—Saw for tile, brick, asbestos, etc. Red Star Products Corp., Cleveland, Ohio.
MULTISEAL—Cross-ribbed solid metal gasket. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
MULTISERVIS — Water level controls. Nason Manufacturing Co., New York.
MULTISOCKET—Wrenches. J. H. Williams & Co., New York, N. Y.
MULTITRIP—Box trucks, etc. G. B. Lewis Co., Watertown, Wis.
MULTO — Reversible ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
MUNICIPAL—Fire hydrants. Vogt Brothers Mfg. Co., Louisville, Ky.
MURDOCK — Air compressors and pumps. The Meier Electric & Machine Co., Indianapolis, Ind.
MURRAY—Log chain, rope sheaves, band saw bands, resaws, pipe fittings, etc. D. J. Murray Mfg. Co., Wausau, Wis.
MYSTIC—Bearing metal. Magnolia Metal Co., Elizabeth, N. J.
MYSTIC—Lawn sprinklers. W. D. Allen Mfg. Co., Chicago, Ill.

N

N B O—Packing hose and pump valves. Home Rubber Co., Trenton, N. J.
N-M-D—(Non-Metallic Disc) Globe, angle, check and quick operating. The Lunkenheimer Co., Cincinnati, Ohio.
N R G—Vertical condensation pumps. Well Pump Co., Chicago, Ill.
NAIAD—Leather belting and belt cement. Detroit Oak Belting Co., Detroit, Mich.
NAMCO—Taps and dies. The National Acme Co., Cleveland, Ohio.
NAPIER—Saw blades. Metal Saw & Machine Co., Inc., Springfield, Mass.
NAPIER, JUNIOR — Band saw machines. Metal Saw & Machine Co., Inc., Springfield, Mass.
NATIONAL — Carbide. Air Reduction Sales Co., New York, N. Y.
NATIONAL — Conveyor belt. Link-Belt Co., Chicago, Ill.
NATIONAL—Pipe, casing, oil well tubing, etc. National Tube Co., Pittsburgh, Pa.
NATIONAL—Portable lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
NATIONAL—Tool cases and chests. H. Gerstner & Sons, Dayton, Ohio.
NATIONAL CARBIDE—Carbide and carbide lanterns. National Carbide Corp., New York, N. Y.
NATIONAL CARBIDE V-G—Lights. National Carbide Corp., New York, N. Y.
NATIONAL-SHELBY—Tubing and boiler tubes. National Tube Co., Pittsburgh.
NATIVE—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
NATURAL GRIP—Belt dressing. Chas. A. Schieren Co., New York, N. Y.
NAVAL — Nickel, anti-friction metal. Federated Metals Corp., New York, N. Y.
NAVAR—Paint. American Asphalt Paint Co., Chicago, Ill.
NAVY—Grease cups. Consolidated Brass Co., Detroit, Mich.
NAVY SCREW—Hoists. David Round & Son, Cleveland, O.
NAVY SPECIAL—Asbestos piston packing. A. W. Chesterton Co., Boston, Mass.
NAVY SPECIAL—Leather belting. Baltimore Belting Co., Baltimore, Md.
NEATPACK — Wire solder. Federated Metals Corp., New York, N. Y.
NELLA—Hose cabinets. W. D. Allen Mfg. Co., Chicago, Ill.
NEMO—Asbestos cement. Smith & Kanzler, Inc., Elizabeth, N. J.
NEPAC—Leather belting. Capen Belting & Rubber Co., St. Louis, Mo.
NEPTUNE — Hose. Goodall Rubber Co., Philadelphia, Pa.
NEVASTANE—Lubricants. Keystone Lubricating Co., Philadelphia, Pa.
NEVERBREAK—Lace leather and chrome belt lacing. California Tanning Co., St. Louis, Mo.
NEVERFAIL—Lubricators. American Injector Co., Detroit, Mich.
NEVERLEAK—Garden hose. The Mechanical Rubber Co., Passaic, N. J.
NEVERSLIP—Belt dressing. The White & Bagley Co., Worcester, Mass.
NEVERSLIP—Grease cups. American Injector Co., Detroit, Mich.
NEVERSLIP—Leather belting. Page Belting Co., Concord, N. H.
NEVERSLIP—Spring and lock washers. Philadelphia Steel & Wire Corp., Philadelphia, Pa.
NEVERTIP—Trucks. The Excelsior Plimptruck Co., Stamford, Conn.
NEW ALERT — Force pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
NEW BRITAIN—Drill chucks. Union Mfg. Co., New Britain, Conn.
NEW BADGER NO. 5 SLIP PROOF—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
NEW CASTLE — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
NEW EASY—Bolt clippers, chain cutters and nut splitters. H. K. Porter, Inc., Everett, Mass.
NEW ECLIPSE—Tapping machines. Hays Manufacturing Co., Erie, Pa.
NEW EMPIRE—Speed indicators. Greene, Tweed & Co., New York, N. Y.
NEW LIFE—Belt dressing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
NEW MULESKIN—Leather aprons. California Tanning Co., St. Louis, Mo.
NEW-NEVER-SLIP—Car movers. Appleton-Atlas Car Mover Corp., Milwaukee.
NEW PRINCIPLE—Floor flanges. Moore Flange Corp., New York, N. Y.
NEW PROCESS — Cotton covered rubber hose. Mulconroy Company, Philadelphia.
NEW PYRAMID—Shallow well water system. Goulds Pumps, Inc., Seneca Falls, N. Y.
NEW STYLE PAULUS—Track drills. Tallman Manufacturing Co., Shelbyville, Ill.
NEW TYPE—Oil tank wagon hose. Goodall Rubber Co., Philadelphia, Pa.
NEWARK — Wire cloth, metallic filter cloth, cornerless testing sieve, gasketed filter cloth. Newark Wire Cloth Co., Newark, N. J.
NEWMAN—Portable watchman's clocks. Detex Watchclock Corp., Chicago, Ill.
NEWTYPE—Boots. Goodall Rubber Co., Philadelphia, Pa.
NEWTYPE—Fire hydrants and water gate valves. The Kennedy Valve Mfg. Co., Elmira, N. Y.
NIAGARA—Bolts. Buffalo Bolt Co., North Tonawanda, N. Y.
NIAGARA—Coil chain specialties. American Chain Co., Inc., Bridgeport, Conn.
NIAGARA—Emery. Keystone Emery Mills, Philadelphia, Pa.
NIAGARA—Flat leather belting. Johnson Belting Co., New York, N. Y.
NIAGARA — Machinery steels. Crucible Steel Co. of America, New York, N. Y.
NIAGARA—Water, hot water and oil meters, strainers and air release valves. Buffalo Meter Co., Buffalo, N. Y.
NIAGARA PLEXO—Flat leather belting. Johnson Belting Co., New York, N. Y.
NICE—Bearings. Boston Gear Works, Inc., North Quincy, Mass.
NICHOLSON—Files and rasps. Nicholson File Co., Providence, R. I.
NICKEL STEEL BRAND—Saws and saw blades. Frank W. Swett & Son, Chicago.
NIGHT DRESS—Belt dressing. F. Raniville Co., Grand Rapids, Mich.
NIGRUM—Oilless wood bearings. Bound Brook Oilless Bearing Co., Bound Brook, N. J.
NIKOLIME—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
NIKROME—Alloy steel. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
1916—Ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
NIPPON—Shovels. The Osborn Manufacturing Co., Cleveland, Ohio.
NITE DRESS—Belt dressing. F. Raniville Co., Grand Rapids, Mich.
NITRALLOY—Alloy steel. Ludlum Steel Co., Watervliet, N. Y.
NIXON—Ratchet coal drills. Chattanooga Machinery Co., Chattanooga, Tenn.
NO-LEAK—Apron conveyors. Link-Belt Co., Chicago, Ill.
NO WASTE—Roving cans. Fibre Specialty Mfg. Co., Kennett Square, Pa.
NOBIND—Marine stuffing boxes. The Upson-Walton Co., Cleveland, Ohio.
NOBLEWEST — Marking and numbering machines, marking dies and steel stamps. The Noble & Westbrook Mfg. Co., East Hartford, Conn.
NOCO BRAND—Leather belting, valves, pump, leather washers, etc. W. S. Nott Co., Minneapolis, Minn.
NOC-OUT—Hose clamp. Wittek Mfg. Co., Chicago, Ill.
NODRIP—Concrete pins. Hillwood Mfg. Co., The, Cleveland, Ohio.
NOELTING — Casters. Faultless Caster Corp., Evansville, Ind.
NO-GALL — Pipe compound. Keystone Lubricating Co., Philadelphia, Pa.
NOGALD—Wire. The Youngstown Sheet and Tube Company, Youngstown, Ohio.
NOKORODE—Solder. The M. W. Dunton Co., Providence, R. I.
NOKOROS—Unions. Illinois Malleable Iron Co., Chicago, Ill.
NOLAP—Abrasive sleeves and belts. The Cleveland Container Co., Cleveland, Ohio.
NON-BREAKABLE—Hack saw blades. E. C. Atkins and Co., Indianapolis, Ind.
NON-GRAN—Bronze. American Non-Gran Bronze Corp., Berwyn, Pa.
NON KINK—Cord garden hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
NON LINK POSITIVE—Lock washers and nut locks. The Positive Lock Washer Co., Newark, N. J.
NON-PULSATING — Deep well duplex water pumps. Luitwieler Pumping Engine Co., Rochester, N. Y.
NON-SKID—Screw drivers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
NON-SPARKING—Wrenches. J. H. Williams & Co., New York, N. Y.
NOPAK—Valves. Galland-Henning Manufacturing Co., Milwaukee, Wis.
NONPAREIL — Generator valves. The Lunkenheimer Co., Cincinnati, Ohio.
NORBIDE—Boron carbide abrasive. Norton Co., Worcester, Mass.
NORKA—Automobile radiator hose and sheet packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
NORKA—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
NORMA-HOFFMANN—Ball, roller and thrust bearings. Norma-Hoffmann Bearings Corp., Stamford, Conn.
NORTHWIND—Electric desk fans. The Emerson Electric Mfg. Co., St. Louis, Mo.
NORWOOD—Garden and water hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
NORTON—Jacks. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
NORWICH—Nail and ball pean hammers. David Maydole Tool Corp., Norwich, N. Y.
NOTASTANE—Lubricants. Keystone Lubricating Co., Philadelphia, Pa.
NOXALL—Lace leather and cut lacings. The Chicago Rawhide Mfg. Co., Chicago, Ill.
NOXALL—Water filters. American Filter Co., Milwaukee, Wis.

No. 8372—Brattice cloth. Upson-Walton Co., Cleveland, Ohio.
No. 1854—Suction hose. The Mechanical Rubber Co., Passaic, N. J.
No. 5071—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
No. 9626—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
No. 2098—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
NU-GRIP—Screw drivers and bits. The Irwin Auger Bit Co., Wilmington, Ohio.
NU GRIP—Tinners' snips and shears. J. Wiss & Sons Co., Newark, N. J.
NUCORD—Belting. Nucord Products Co., Chicago, Ill.
NUCUT—Heller Brothers Co., Newark, N. J.
NUTATE — Telltale flexible staybolts. Flannery Bolt Co., Pittsburgh, Pa.
NUXALL — Boiler flue and tube cleaner. Pacific Chemical Co., Los Angeles, Calif.
NYCORD—Manila rope. Rochester Ropes, Inc., Jamaica, N. Y.
NYE—Steam pumps. Nye Steam Pump & Machinery Co., Chicago, Ill.

O

O. E.—Expansion bolt shield. Arro Expansion Bolt Co., Marion, Ohio.
OIC—Valves. Ohio Injector Co., Wadsworth, Ohio.
O.I.M.—Packing. Home Rubber Co., Trenton, N. J.
O.K.—Bolt clippers, chain cutters and nut splitters. H. K. Porter, Inc., Everett, Mass.
O. K.—Door hangers and hay unloaders. The F. E. Myers & Bro. Co., Ashland, O.
OK JR.—Screw plates and die stocks, Greenfield Tap and Die Corp., Greenfield, Mass.
O. K.—Nail sets, center, prick and drive pin punches. Millers Falls Co., Greenfield, Mass.
OK—Sight Feed lubricators. American Injector Co., Detroit, Mich.
O K—Pipe stocks and dies. Greenfield Tap & Die Corp., Greenfield, Mass.
O. P. B.—Oilless peg bearings. Mechanical Devices Co., Bloomington, Ill.
O. S.—Nut locks. American Nut and Bolt Fastener Co., Pittsburgh, Pa.
OAK — Leather packings. Michigan Leather Packing Co., Detroit, Mich.
OAKEN—Belting. Whitehead Bros. Rubber Co., Trenton, N. J.
OAKWOOD — Leather belting. Baldwin Belting & Leather Co., Inc., New York, N. Y.
OBERDORFER—Bronze bars, fittings, etc. M. L. Oberdorfer Brass Co., Syracuse, N. Y.
OBERG (C. O.) BRAND—Files. Sandvik Saw & Tool Corp., Minneapolis, Minn.
OCTOLE—Nail hammers. David Maydole Tool Corp., Norwich, N. Y.
OHIO—Carbon and metal brushes for motors and generators. Ohio Carbon Co., Cleveland, Ohio.
OIL BATH—Power pumps. Dean Brothers Co., Indianapolis, Ind.
OIL PAC—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
OIL PULL—Industrial belting. The Hettrick Mfg. Co., Toledo, Ohio.
OIL-RITE — Pumps and water systems. The Deming Co., Salem, Ohio.
OIL TYPE—Pulley clutches and cut-off couplings. Kinney Manufacturing Co., Boston, Mass.
OILTITE—Sheet packing. Jenkins Bros., New York, N. Y.
OILZUM—Motor oils and greases. The White & Bagley Co., Worcester, Mass.
OIM—(ON ITS MERIT)—Packing. Home Rubber Co., Trenton, N. J.
OKEH—Steel tapes. Keuffel & Esser Co., Hoboken, N. J.
OKO BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
OKTAGONALS (Corley Oktagonals) — Unions. The Corley Co., Jersey City, N. J.
OLD DUTCH PROCESS — White lead. Sherwin-Williams Co., Cleveland, Ohio.
OLD CROW—Sheet and piston packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
OLD ENGLISH—Floor waxes. The A. S. Boyle Co., Cincinnati, Ohio.
OLD GLORY—Belting. Home Rubber Co., Trenton, N. J.
OLD GOLD—Suction hose. The Mechanical Rubber Co., Passaic, N. J.
OLD HONESTY—Paint. Vita-Var Corp., Newark, N. J.
OLD RELIABLE—Babbitt metal. Murphy Metals Co., Chicago, Ill.
OLD RELIABLE—Ladders. The Goshen Manufacturing Co., Goshen, Indiana.
OLD RELIABLE XX—Dredge chain. The McKay Co., Pittsburgh, Pa.
OLD TIMER—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
OLDHAM — Pneumatic tools. Chicago Pneumatic Tool Co., New York, N. Y.
OLIVE HILL—Fire clay brick. General Refractories Co., Philadelphia, Pa.
OLIVER—Woodworking machinery. Oliver Machinery Co., Grand Rapids, Mich.
OLOTAN—Rounded leather belting and "V" belt. F. Raniville Co., Grand Rapids, Mich.
OLYMPUS—Gauge locks. Nason Manufacturing Co., New York, N. Y.
ONEGA—Valve tools. Stevens Walden, Inc., Worcester, Mass.
ONEIDA TYPE — Steel split pulleys. Dodge Manufacturing Corp., Mishawaka, Ind.
ONTARIO AIR—Die steel. Ludlum Steel Co., Watervliet, N. Y.
ONYX—Machinery steels. Crucible Steel Co. of America, New York, N. Y.
OPTO-MATIC OILER—Visible lubricators. Trico Fuse Mfg. Co., Milwaukee, Wis.
ORANGEBURG — Underground duct. Johns-Manville, New York, N. Y.
ORANGEVILLE—Floor trucks. Orangeville Mfg. Co., Orangeville, Pa.
ORGAN—Grease cups. Keystone Lubricating Co., Philadelphia, Pa.
ORIGINAL—Belt fasteners. Isaac Jackson Belt Fastener Co., Inc., New York.
ORIGINAL ENDERES — Chisels, nippers, punches, etc. Enderes, Son & Co., Inc., Guttenberg, Iowa.
ORIGINAL — Expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
ORIGINAL—Glass body oil cups. Consolidated Brass Co., Detroit, Mich.
ORIOLE—Hose. Hewitt Rubber Corp., Buffalo, N. Y.
ORIOLE—Round leather belting and lace leather. I. B. Williams & Sons, Dover, N. H.
ORIOLE—Small home garage vises. The Charles Parker Co., Meriden, Conn.
ORO—Leather belting. Bonner & Barnewall, Inc., New York, N. Y.
ORVIS—Fire clay brick. General Refractories Co., Philadelphia, Pa.
OSAGE — Belting. Goodall Rubber Co., Philadelphia, Pa.
OSBORN — Overhead material handling equipment, brushes, brooms, shovels, moulding machines and foundry equipment. The Osborn Manufacturing Co., Cleveland, Ohio.
OSHKOSH—Logging and pole line construction tools, shovels, stokers and spoons. Leach Co., Oshkosh, Wis.
OSTER 300—General purpose pipe machine. The Oster Manufacturing Co., Cleveland, Ohio.
OSTER WILLIAMS — Threading equipment. The Oster Manufacturing Co., Cleveland, Ohio.
OT-STEEL—Steel factory, school, office and garage equipment. Angle Steel Stool Co., Plainwell, Mich.
OUTINGLAS—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
OVAL FINE WIRE and **SPIRAL**—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
OVALHOLE—Hollow center packing. The Hollow Center Packing Co., Cleveland, Ohio.
OVER-THE-TOP—Belt dressing. Magic Leather Treatment Co., Detroit, Mich.
OVER-WAY—Conveying systems. Richards-Wilcox Mfg. Co., Aurora, Ill.
OVERCOAT — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
OWEN—Coil springs. Owen Silent Spring Co., Inc., Bridgeport, Conn.
OWL—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
OWL—Tool handles. American Handle Co., Jonesboro, Ark.
OWL EYE—Leather loom pickers. Chas. A. Schieren Co., New York, N. Y.
OXFORD—Unions. Standard Union Co., Inc., Lockport, N. Y.
OXHIDE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
OXIDIZED CARBON CEMENT—Paint. Vita-Var Corp., Newark, N. J.
OXWELD — Welding and cutting equipment. The Linde Air Products Co., Unit of Union Carbide and Carbon Corp., New York, N. Y.
OZARK—Fire clay brick. A. P. Green Fire Brick Co., Mexico, Mo.
OZARK—Water filters. E. L. Miller Mfg. Co., Kansas City, Mo.

P

P & B—Industrial paints. The Paraffine Companies, Inc., San Francisco, Calif.
P & B—Insulating tape and compounds. The Ruberoid Co., New York, N. Y.
P.B.H.—Water gauges, cocks, glass protectors, stoking tools, boiler cement, etc. Paul B. Huyette Co., Inc., Philadelphia, Pa.
P&H—Electric overhead traveling cranes, hoists, etc. Harnischfeger Corp., Milwaukee, Wis.
P-K—Screws. Parker-Kalon Corp., New York, N. Y.
P. & H. SMOOTH-ARC—Electric welders. Harnischfeger Corp., Milwaukee, Wis.
P. I. V. GEAR—Variable speed transmissions. Link-Belt Co., Chicago, Ill.
P. L. C.—Lubricants, metal polish, boiler metal treatment, etc. Patterson Lubricating Co., Boston, Mass.
P. O. B.—Paper oilless bearings. Mechanical Devices Co., Bloomington, Ill.
PABCO—Paints, roofings and floor coverings. The Paraffine Companies, San Francisco, Calif.
PACEMAKER — Belting and dredge sleeves. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
PACEMAKER — Coal shovels. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
PACIFIC—Belt and hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
PACIFIC—First aid equipment. E. D. Bullard Co., San Francisco, Cal.
PACIFIC—Flax tow hose. American Fire Hose Co., Philadelphia, Pa.
PACKO—Plastic packings. Goodsell Packing Co., Algonquin, Ill.
PACTITE—Metal shredded packing. Federal Metallic Packing Co., Wakefield, Mass.
PAGE—Welding rods. Page Steel & Wire Division of American Chain Co., Inc., Monessen, Pa.
PAGE-ALCOA-ALUMIUM — Chain link fence. Page Steel & Wire Division of American Chain Co., Inc., Monessen, Pa.
PAGE ARMCO—Chain link fence. Page Steel & Wire Division of American Chain Co., Inc., Monessen, Pa.
PAGET—Water heaters, boiler tube cleaners, etc. Self Cleaning Strainer Co., Chicago, Ill.
PAINT O'MISTER — Portable electric spray units. Simplex Spray Equipment Co., Chicago, Ill.
PAINTERS PRIDE—Step ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
PALCO—Packing. Greene, Tweed & Co., New York, N. Y.
PALISADE—Hose. New York Belting & Packing Co., Passaic, N. J.
PALLADIUM — Hose. The Mechanical Rubber Co., Passaic, N. J.
PALMETTO—Solid woven cotton belting. Victor Balata & Textile Belting Co., New York, N. Y.
PALMETTO — Steam packing. Greene, Tweed & Co., New York, N. Y.
PALMGREN—Vises, chucks, boring heads and tool holders. Chicago Tool & Engineering Co., Chicago, Ill.
PAN AMERICAN — Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
PANAMA—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PANSAR—Files. Sandvik Saw & Tool Corp., Minneapolis, Minn.
PANTHER SPECIAL—High speed steel. Ludlum Steel Co., Watervliet, N. Y.
PARA—Oil and gasoline hose. New York Belting & Packing Co., Passaic, N. J.
PARA FLAX—Packing. New York Belting & Packing Co., Passaic, N. J.
PARABOLIC—Milling cutters. National Twist Drill & Tool Co., Detroit, Mich.
PARADOX — Adjustable reamers. The Cleveland Twist Drill Co., Cleveland, O.
PARAGON — Belt punches. The Wm. Schollhorn Co., New Haven, Conn.
PARAGON—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
PARAGON — Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
PARAGON—Spray pumps. The Campbell-Hausfeld Co., Harrison, Ohio.
PARAGON—Tool steel. Crucible Steel Co. of America, New York, N. Y.
PARAGON — Ventilating fans. Bendix Products Corp., South Bend, Ind.
PARAMOUNT—Hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
PARANITE G O P—Oil hose and oil proof composition for use as valve seats, washers, gaskets, etc. The Manhattan Rubber Mfg. Div., of Raybestos-Manhattan, Inc., Passaic, N. J.
PARCO POWDER—Rust proofing. Parker Rust Proof Co., Detroit, Mich.
PARENT STEEL—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
PARKER-KALON—Drive screws, self tapping, sheet metal screws, etc. Parker-Kalon Corp., New York, N. Y.
PARKSIDE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
PARMELEE—Pipe wrenches. Walworth Co., New York, N. Y.
PAROB—Hand expansion reamers. The Gammons-Holman Co., Manchester, Conn.
PAROCK—Oil-less bearings and hard rubber. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PARONITE—Belting, hose, packing and rings. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PASP—Packing. Home Rubber Co., Trenton, N. J.
PATHFINDER—Farm belting. The Goodyear Tire & Rubber Co., Inc., Akron, O.

PATROL — Portable watchman's clocks. Detex Watchclock Corp., Chicago, Ill.
PAUL—Air guns. Wm. E. Pratt Mfg. Co., Joliet, Ill.
PAVING BREAKERS—Concrete drills. Ingersoll-Rand Co., New York, N. Y.
PAWNEE—Belt lacing. California Tanning Co., St. Louis, Mo.
PAWNEE—Steel grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
PAXIT—Packing. Excel Asbestos Mfg. Co., Garwood, N. J.
PAXOL—Sheet packing. The Mechanical Rubber Co., Passaic, N. J.
PAXTITE — Leather packings. Watson-Stillman Co., Roselle, N. J.
PEASE—Glass body oil cups. W. D. Allen Mfg. Co., Chicago, Ill.
PECK—Carriers (power house conveyors). Link-Belt Co., Chicago, Ill.
PEECO — Steam separators and utility strainers. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
PEERLESS—Brass grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
PEERLESS—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, O.
PEERLESS CHROME—Belt lacing. California Tanning Co., St. Louis, Mo.
PEERLESS—Friction clutches and molding slip flasks. T. B. Wood's Sons Co., Chambersburg, Pa.
PEERLESS—Furnace cement. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
PEERLESS—Gasoline and oily waste cans. Miller Peerless Manufacturing Co., Chicago, Ill.
PEERLESS — Hand screws. Adjustable Clamp Co., Chicago, Ill.
PEERLESS—H. S. reamers. The Cleveland Twist Drill Co., Cleveland, Ohio.
PEERLESS—Spur gear chain hoists. The Harrington Co., Philadelphia, Pa.
PEERLESS — Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
PEERLESS — Hand tool grinder. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
PEERLESS—Tool steel. Heller Bros. Co., Newark, N. J.
PEERLESS A—Hot work steel. Crucible Steel Co. of America, New York, N. Y.
PEIRCE—Pole line hardware specialties. Hubbard & Co., Pittsburgh, Pa.
PELRO—Packing. Greene, Tweed & Co., New York, N. Y.
PENFLEX—Flexible metallic hose, barrel fillers, etc. Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
PENLO—Engine lubricator. The Lunkenheimer Co., Cincinnati, Ohio.
PENN—Vises. Hollands Mfg. Co., Erie, Pa.
PENN KELLER—Work gloves. Keller Glove Mfg. Co., Plumsteadville, Pa.
PENN-MOTOR PUMPS—Centrifugal pumping units. Pennsylvania Pump & Compressor Co., Easton, Pa.
PENNENT—Pure manila rope. St. Louis Cordage Mills, St. Louis, Mo.
PENNIE—(KENNEDY-PENNIE) — Back water valves. The Kennedy Valve Manufacturing Co., Elmira, N. Y.
PENNTEX—Solid interwoven belt. Victor Balata & Textile Belting Co., New York, N. Y.
PENTEX—Firebrick. Quigley Co., New York, N. Y.
PEORIA—Nozzles. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
PEQUOIT—Waterproof leather belting. Holyoke Belting Co., Holyoke, Mass.
PER FEC HOLE—Grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
PERFECT—Axes. American Fork & Hoe Co., Cleveland, Ohio.
PERFECT—Boiler flue cleaners. L. G. Doolittle, Binghamton, N. Y.
PERFECT — Emery wheel dressers and wrenches. Wm. E. Pratt Mfg. Co., Chicago, Ill.
PERFECT—Gauges. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
PERFECT—Oil retainers and oil seals. The Chicago Rawhide Mfg. Co., Chicago, Ill.
PERFECT—Tool handles. O. P. Link Handle Co., Salem, Ind.
PERFECT—Wire cloth and wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
PERFECT BALANCE—Wire and fiber rotary sections and wire wheels. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
PERFECT CLINCHING—Hose couplings and menders. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
PERFECT EXPANSION—Packing. New York Belting & Packing Co., Passaic, N. J.
PERFECT HANDLE—Monkey wrenches and screw drivers. Trimont Mfg. Co., Roxbury, Boston, Mass.
PERFECT SEAL—Gasket cement. Ideal Commutator Dresser Co., Sycamore, Ill.
PERFECTED—Piano and wire, etc. American Steel & Wire Co., Chicago, Ill.
PERFECTED Z Z—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
PERFECTION—Belting and suction hose and dredging sleeves. Boston Woven Hose & Rubber Co., Cambridge, Mass.
PERFECTION — Box scrapers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
PERFECTION—Brass valves, globe "Y" and gage cocks. Central Valve Co., Chicago, Ill.
PERFECTION—Carriage and machine bolts. The Lamson & Sessions Co., Cleveland, Ohio.
PERFECTION—Cross-cut saws. E. C. Atkins and Co., Indianapolis, Ind.
PERFECTION—Engineers' oilers. Handlan-Buck Mfg. Co., St. Louis, Mo.
PERFECTION—Flax pump packing. Advance Packing & Supply Co., Chicago, Ill.
PERFECTION—Glass body oil cups. Consolidated Brass Co., Detroit, Mich.
PERFECTION—Glass cutting boards. The Lufkin Rule Co., Saginaw, Mich.
PERFECTION—Leather belting, dressing and cement. Bonner & Barnewall, Inc., New York, N. Y.
PERFECTION—Pump connections. Stevens Walden, Inc., Worcester, Mass.
PERFECTION—Shears. The W. H. Compton Shear Co., Newark, N. J.
PERFECTION—Steel bar clamps. The Cincinnati Tool Co., Cincinnati, Ohio.
PERFECTION — Steel wool. Albert E. Rinn Co., Allentown, Pa.
PERFECTION — Striking tool handles. Turner, Day & Woolworth Handle Co., Louisville, Ky.
PERFECTION—Wire rope. The Upson-Walton Co., Cleveland, Ohio.
PERKO—Marine lamps, hardware and specialties. Perkins Marine Lamp & Hardware Corp., Brooklyn, N. Y.
PERMALOCK—Gasoline hose couplings. The B. F. Goodrich Co., Akron, Ohio.
PERMANENCE IN STEEL—Steel factory, school, office and garage equipment. Angle Steel Stool Co., Plainwell, Mich.
PERMANENT PRODUCTS — Brass and bronze bolts, nuts, screws, etc. The Everitt Co., Boston, Mass.
PERMANITE — Asbestos sheet packing. Ferodo & Asbestos, Inc., New Brunswick, N. J.
PERMITE—Aluminum paint, bronze bars, bushings, etc. Aluminum Industries, Inc., Cincinnati, Ohio.
PERRY — Scrapers. The Sidney Steel Scraper Co., Sidney, Ohio.
PET—Lubricators. American Injector Co., Detroit, Mich.
PETROL—Conveyor belt. Victor Balata & Textile Belting Co., New York, N. Y.
PETROL, READY TITAN GIANT—Throttle valves. The Wm. Powell Co., Cincinnati, Ohio.
PETROLA—Sheet packing. The Belmont Packing & Rubber Co., Philadelphia, Pa.
PEXTO—Tools, hardware and sheet metal working machinery. The Peck, Stow & Wilcox Co., Southington, Conn.
PHI METAL—Babbitt metal. Glacier Metal Co., Richmond, Va.
PHILADELPHIA—Oil field cordage and drilling cables. The Edwin H. Fitler Co., Philadelphia, Pa.
PHOENIX—Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
PHOENIX—Twine, etc. Samson Cordage Works, Boston, Mass.
PHOMAIRE PLAY PIPE—Foam making water nozzles. Pyrene Manufacturing Co., Newark, N. J.
PHOMENE—Fire extinguishers and engines. Pyrene Manufacturing Co., Newark, N. J.
PHONEYE—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.
PIG NOSE—Knives for hogs, chippers and shredders. Mitts and Merrill, Saginaw, Mich.
PIGSKIN—Packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PIKE—Oilstone and general purpose oil. Behr-Manning Corp., Troy, N. Y.
PILOT—Iron body gate valves. The Wm. Powell Co., Cincinnati, Ohio.
PILOT—Sight feed oil cups. Essex Brass Corp., Detroit, Mich.
PIONEER—Flint paper. Wausau Abrasives Co. Division, Minnesota Mining & Manufacturing Co., St. Paul, Minn.
PIONEER—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
PIONEER — Steel hangers. Standard Pressed Steel Co., Jenkintown, Pa.
PIONEER—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
PIPE MASTER—Pipe wrench. The Erie Tool Works, Erie, Pa.
PIQUA—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
PISTOL—American style files. Grobet File Corp. of America, New York, N. Y.
PITTSBURGH—Inserted tooth saws, rivet sets and chisel blanks. E. T. Lippert Saw Co., Pittsburgh, Pa.
PITTSBURGH BEVEL—Steel letters and figures (marking). Jas. H. Matthews & Co., Pittsburgh, Pa.
PLANER—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
PLANER BRAND—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
PLANET—Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
PLANETAINER—Road drags. The General Wheelbarrow Co., Cleveland, Ohio.
PLASGON—Plastic and gasket cement. The Wilbur & Williams Co., Boston, Mass.
PLASTERCOTE — Waterproofing. Vita-Var Corp., Newark, N. J.
PLASTEX—Paint. The Reardon Co., St. Louis, Mo.
PLASTIC K-N—Plastic chrome ore refractory. E. J. Lavino & Co., Philadelphia, Pa.
PLASTIC WOOD — Cellulose fibre filler (wood putty). The A. S. Boyle Co., Cincinnati, Ohio.
PLASTISEAL—Heat resistant and oil proof expanding joint sealing compound. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
PLASTOPAC—Rod packing. New York Belting & Packing Co., Passaic, N. J.
PLATE AA—Fire hose cabinet. Wirt & Knox Mfg. Co., Philadelphia, Pa.
PLEWS—Oil pumps and lubricators. Plews Oil Co., Minneapolis, Minn.
PLUMTITE—Graphite paste. Superior Flake Graphite Co., Chicago, Ill.
PLUS—Type steel chains. Link-Belt Co., Chicago, Ill.
PLUVIOUS—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
PLYMOUTH—Mechanical stokers. Plymouth Industries, Inc., Plymouth, Ind.
PLYMOUTH—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
POINTCUT—Pruner. H. K. Porter, Inc., Everett, Mass.
POLAR—Brass grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
POLAR — Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
POLCO—Cylinders for transporting compressed gases. The Linde Air Products Co., Unit of Union Carbide and Carbon Corp., New York, N. Y.
POMONA—Barrel sprayer. Goulds Pumps, Inc., Seneca Falls, N. Y.
POMPTON—Straight carbon tool bits. Ludlum Steel Co., Watervliet, N. Y.
PONY—Clamp fixtures, wood and steel bar clamps, miniature "C" clamps and malleable lathe dogs. Adjustable Clamp Co., Chicago, Ill.
PONY—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
PORT-AIR—Exhaust fan. Victor Electric Products, Inc., Cincinnati, Ohio.
PORTAGE — Belting, white corrugated matting, hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
PORTER—Spring winder. Advance Car Mover Co., Inc., Appleton, Wis.
PORTFLEX—Flexible shaft equipment. The Dallett Co., Philadelphia, Pa.
PORTO-POWER — Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
POSITIVE—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
POSITIVE TYPE "D"—Spring washers, nut locks. The Positive Lock Washer Co., Newark, N. J.
POTOMAC — Shafts. Cumberland Steel Co., Cumberland, Md.
POWDER-PACKED — Renewable fuses. Trico Fuse Mfg. Co., Milwaukee, Wis.
POWER—Babbitt metal. Magnolia Metal Co., Elizabeth, N. J.
POWER—Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
POWER BOY—Car movers. The Advance Car Mover Co., Appleton, Wis.
POWER BOY—Portable pipe threading machine. The Oster Manufacturing Co., Cleveland, O.
POWER HOE—Drag scraper. Link-Belt Co., Chicago, Ill.
POWER KING—Car movers. The Advance Car Mover Co., Appleton, Wis.
POWER KING—Portable electric hand saws and drills. Portable Power Tool Corp., Warsaw, Ind.
POWER KING — Transmission belting. Goodall Rubber Co., Philadelphia, Pa.
POWER TWIST—Waste line cleaners. The Standard Appliance Corp., Dayton, Ohio.
POWERHOLD — Leather belting. J. E. Rhoads & Son, Philadelphia, Pa.
POWR PLUS—Leather belting. Geo. Rahmann & Co., New York, N. Y.

PRACTICAL—Force feed lubricators. McCullough Manufacturing Co., Minneapolis, Minn.
PRACTICAL — Jacks. Oliver-Barth Jack Co., Milwaukee, Wis.
PRATT—Box car loaders. Link-Belt Co., Chicago, Ill.
PRATT & CADY—Valves and cocks. Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
PRECALKED JOINT — Cast iron water pipe. McWane Cast Iron Pipe Co., Birmingham, Ala.
PRECISION—Balancing machine. Gisholt Machine Co., Madison, Wis.
PRECISION — Frictionless live centers. The J. C. Glenzer Co., Detroit, Mich.
PRECISION GROUND—Cross-cut saws. Henry Disston & Sons, Inc., Philadelphia.
PREMIER — Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
PREMIER—Electric heaters, boiler, furnace, industrial and service station cleaners. Electric Vacuum Cleaner Co., Inc., Cleveland, Ohio.
PREMIER—Gas engine lubricator. The Lunkenheimer Co., Cincinnati, Ohio.
PREMIER—Leather belting. McLean Manufacturing Corp., New York, N. Y.
PREMIER—Lubricating oils and greases. American Oil & Grease Corp., Chicago, Ill.
PREMIER—Welding wire. American Steel & Wire Co., Chicago, Ill.
PRENTICE—Lathes. Reed-Prentice Corp., Worcester, Mass.
PRESSURE PROOF — Asbestos piston packing. A. W. Chesterton Co., Boston, Mass.
PRESTO—Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
PRESTO — Spray painting and finishing equipment. Metal Specialties Mfg. Co., Chicago, Ill.
PREST-O-LITE—Soldering, brazing and heating equipment, acetylene and flood lights. The Linde Air Products Co., Unit of Union Carbide and Carbon Corp., New York, N. Y.
PREST-O-LITE HALIDE—Gas leak detector. The Linde Air Products Co., Unit of Union Carbide and Carbon Corp., New York.
PREST-O-WELD — Welding and cutting equipment. The Linde Air Products Co., Unit of Union Carbide and Carbon Corp., New York.
PRICE—Pyrometers, indicating thermometers, etc. Illinois Testing Laboratories, Inc., Chicago, Ill.
PRIMA — Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
PRIMO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
PRIMUS—Camp stoves and torches. Sandvik Saw & Tool Corp., Minneapolis, Minn.
PRO-OIL (RUST-PRUF)—Primer and production undercoats. The Rust-Pruf Co., Chicago, Ill.
PROBESTOS — Serrated solid metal gasket with asbestos cord insert. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
PROCUNIER — Chucks, holders, tapping and screw driving machines, etc. Procunier Safety Chuck Co., Chicago, Ill.
PRODUCTIMETERS—Counting and measuring machines. Durant Mfg. Co., Milwaukee, Wis.
PRODUCTION—Abrasive paper or cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
PROFESSIONAL—Window brushes and cleaners. The Osborn Manufacturing Co., Cleveland, Ohio.
PROMAL—Chains and buckets. Link-Belt Co., Chicago, Ill.
PRONTO — Drain-pipe solvent. Pacific Chemical Co., Los Angeles, Calif.
PROTECTED SEAT—Hydraulic operating valves. Homestead Valve Mfg. Co., Coraopolis, Pa.
PROTECTION — Torches and fire pots. Clayton & Lambert Mfg. Co., Detroit.
PROTECT-O—Electric lamp guards. McGill Mfg. Co., Valparaiso, Ind.
PROTEX ANTI-FREEZE — Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
PROTEXU—Rubber aprons. Gross Rubber Co., Sharon, Pa.
PRYZOAK — Leather belting. Graton & Knight Co., Worcester, Mass.
PSYCHROSTAT — Humidity regulator. Parks-Cramer Company, Fitchburg, Mass.
PUL-LIFT—Hoists. Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.
PULL-E-Z—Platform trucks. The Service Caster & Truck Co., Albion, Mich.
PULSOMETER—Steam pumps. Nye Steam Pump & Machinery Co., Chicago, Ill.
PURITAN—Gasoline hose and hydraulic packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
PURITAN — Liquid hand soap. Pacific Chemical Co., Los Angeles, Calif.
PUROX—Welding and cutting equipment. The Linde Air Products Co., Unit of Union Carbide and Carbon Corp., New York.
PURPLE HEART—Java sisal rope. The Hooven & Allison Co., Xenia, Ohio.
PUSH-E-Z—Platform trucks. The Service Caster & Truck Co., Albion, Mich.
PYOTT VEE TEX—Drives. Pyott Foundry & Machine Co., Chicago, Ill.
PYRALOID—Soft hammers. The Forsberg Mfg. Co., Bridgeport, Conn.
PYRAMID — Bearing metal. Magnolia Metal Co., Elizabeth, N. J.
PYRAMID—Gears. Boston Gear Works, Inc., North Quincy, Mass.
PYRAMID—Horizontal double acting piston pump. Goulds Pumps, Inc., Seneca Falls, N. Y.
PYRAMID—Leather belting. McLean Manufacturing Corp., New York, N. Y.
PYRATHERM—Stack safety control. The Mercoid Corp., Chicago, Ill.
PYRENE — Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.
PYREX—Gauge glasses. Corning Glass Works, Corning, N. Y.
PYRO — Pyrometers. Pyrometer Instrument Co., The, New York, N. Y.
PYROID—Compressed sheet packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
PYTHON—Belt and mill fire hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
PYTHON—Steel. Ludlum Steel Co., Watervliet, N. Y.

Q

Q A — Pipe rests. Armstrong Mfg. Co., Bridgeport, Conn.
Q.A.W.—Hose couplings, valves, polishing wheels, etc. C. B. Hunt & Son, Salem, Ohio.
Q-CHROMASTIC—Plastic refractory surface mortar. Quigley Co., Inc., New York, N. Y.
Q-CHROME—Refractory cement. Quigley Co., Inc., New York, N. Y.
Q-CO—Fire brick. Quigley Co., Inc., New York.
Q-SEAL—Joint sealing compound. Quigley Co., Inc., New York, N. Y.
QUALITY LINE—Fire pots, blow torches, etc. Clayton & Lambert Mfg. Co., Detroit, Mich.
QUALITY SEAL — Brooms. The Southwestern Broom Mfg. Co., Evansville, Ind.
QUEEN—Fire extinguishers, safety ladder shoes, oily waste cans, hose racks, etc. Harker Mfg. Co., Cincinnati, Ohio.
QUEEN—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ohio.
QUEEN ANNE—Burners. Scovill Mfg. Co., Waterbury, Conn.
QUEEN CITY — Adjustable wrenches. Bergman Tool Mfg. Co., Buffalo, N. Y.
QUEER CREEK—Oil stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
QUICK—Bar clamps. The Cincinnati Tool Co., Cincinnati, Ohio.
QUICK AS WINK—Hose couplings, valves, polishing wheels, etc. C. B. Hunt & Son, Salem, Ohio.
QUICK-CHANGE—Water gauges. Wright-Austin Co., Detroit, Mich.
QUICK-CLEAN—Lint proof motors for textile mills. Allis-Chalmers Manufacturing Co., West Allis, Wis.
QUICK DRY — Asphalt paint. American Asphalt Paint Co., Chicago, Ill.
QUICK-SET—Adjustable reamers. The Cleveland Twist Drill Co., Cleveland, O.
QUICKWORK — Rotary shears, power hammers, metal slitting and sheet metal working machines. The Quickwork Co., Chicago, Ill.
QUIGLEY—Fire brick, refractories and refractory guns. Quigley Co., Inc., New York.
QUIGLEY T. S. MORTAR—Refractory cements. Quigley Co., Inc., New York, N. Y.
QUIK-FLO—Bronze quick opening gate valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
QUIK-PACK—Plastic fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
QUINCY—Air compressors and vacuum pumps. Quincy Compressor Co., Quincy, Ill.

R

RC—Type flexible coupling. Link-Belt Co., Chicago, Ill.
R. C.—Hydrants. D. A. Hinman & Co., Inc., Sandwich, Ill
R & E—Furnace cement and insulating block. Refractory & Engineering Corp., New York, N. Y.
R & E No. 3000—Refractory cement. Refractory & Engineering Corp., New York, N. Y.
R & E INSUL-FIL—Insulating wool. Refractory & Engineering Corp., New York, N. Y.
R & E MOLDIT—Refractory cement. Refractory & Engineering Corp., New York, N. Y.
R & E STIC-TITE—Insulating cement. Refractory & Engineering Corp., New York, N. Y.
R. F. & C.—Rubber belting. Buffalo Weaving & Belting Co., Buffalo, N. Y.
RH—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
R. I.—Pipe fittings and unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RN—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
R. R. REGRINDING—Railroad valve. The Lunkenheimer Co., Cincinnati, Ohio.
R-S—Furnaces, burners, heaters, controllers, blast gates, etc. R. S. Products Corp., Philadelphia, Pa.
R-3-P—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RABBIT—Swiss files. Grobet File Corp. of America, New York, N. Y.
RADIO—Belting and hose. Home Rubber Co., Trenton, N. J.
RADIUM A and B—Bearing metal. Hewitt Metal Corp., Detroit, Mich.
RAHTAN STEAMPROOF—Leather belting, check and loom straps. McLeod Leather & Belting Co., Greensboro, N. C.
RAIL HUGGER—Trolley chain hoist. The Yale & Towne Mfg. Co. (Philadelphia Division), Philadelphia, Pa.
RAILROAD SPECIAL—Screw wrench. J. H. Williams & Co., New York, N. Y.
RAIN MASTER—Lawn sprinkler. The Turner Brass Works, Sycamore, Ill.
RAINBOW—Wire belt lacing. Manufacturers' Belt Hook Co., Chicago, Ill.
RAINBOW STRAND—Wire rope. Rochester Ropes, Inc., Jamaica, N. Y.
RAINBOY—Nozzles. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
RAJAH—Brooms. Midwest Broom Manufacturing Co., Circleville, Ohio.
RAJAH—Packings and gaskets. Johns-Manville, New York, N. Y.
RAJAH CORUNDUM — Grinding wheels, oil stones, etc. Goodrich Grinding Wheel Co., Chicago, Ill.
RAMAPO—Leather belting and cement. Baldwin Belting & Leather Co., Inc., New York, N. Y.
RAMSEY—Hand and power winches. United Machinery Co., Portland, Ore.
RANAREX—Indicators and recorders. The Permutit Co., New York, N. Y.
RANGER—Push brooms. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
RAMOL—Belt cleaner. F. Raniville Co., Grand Rapids, Mich.
RANGER SPECIAL — Linen forest fire hose. Fenwick-Reddaway Mfg. Co., Newark, N. J.
RANIWELD — Belting cement. F. Raniville Co., Grand Rapids, Mich.
RAPID—Engraving machinery. Desmond-Stephan Mfg. Co., Urbana, Ohio.
RAPID—Plumbers' specialty tools, wire specialties, etc. The Rapid Spring Co., Pittsburgh, Pa.
RAPID—Single strand twisted jute packing. American Manufacturing Co., Brooklyn, N. Y.
RAPID TRANSIT—Vises. Prentiss Vise Co., New York, N. Y.
RAPIDUCTION—Pipe and bolt threading machines. The Oster Manufacturing Co., Cleveland, Ohio.
RATTLER — Hose. Home Rubber Co., Trenton, N. J.
RAVEN — Hose. Electric Hose & Rubber Co., Wilmington, Del.
RAWHIDE—Linen lariat rope. Rochester Ropes, Inc., Jamaica, N. Y.
RAWL-ANCHORS—Masonry bolt anchor. The Rawlplug Co., Inc., New York, N. Y.
RAWL-DRILLS—Masonry drills for hand or power hammers. The Rawlplug Co., Inc., New York, N. Y.
RAWL-DRIVES—Expansion bolts. The Rawlplug Co., Inc., New York, N. Y.
RAWLPLUGS—Fibre screw anchors. The Rawlplug Co., Inc., New York, N. Y.
RAYBESTOS—Mechanical rubber goods. Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
RE-NEW-DISC—Valves. Walworth Company, New York, N. Y.
READING—Railroad specialties. American Chain Co., Inc., Bridgeport, Conn.
READING — Steel valves and fittings. Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
READING BRAND—Brass and copper pipe nipples. H. W. Hunt Co., Reading, Mass.
READY—Throttle valves. The Wm. Powell Co., Cincinnati, Ohio.
REALOCK—Grease cups for locomotives. Flannery Bolt Co., Pittsburgh, Pa.
REAMRITE—Adjustable reamers. Greenfield Tap & Die Corp., Greenfield, Mass.
REARWIN—Die and filing machine. Oliver Machinery Co., Grand Rapids, Mich.
REARWIN—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.

UMI

RECORD—Babbitt metal. Federated Metals Corp., New York, N. Y.
RED ARROW—High speed steel hack saw blades. W. O. Barnes Co., Inc., Detroit.
RED ARROW—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
RED CAP—Brooms. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
RED CAP—Metal polish, etc. C. M. Kimball Co., Everett, Mass.
RED CAP—Thermostats. Bastian-Morley Co., LaPorte, Ind.
RED CENTER—Circular saws. Simonds Saw and Steel Co., Fitchburg, Mass.
RED CROSS—Belt dressing. Bonner & Barnewall, Inc., New York, N. Y.
RED DRAGON — Gasoline blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
RED-E-HALL — Portable power pipe threader and dies. American Die & Tool Co., Inc., Reading Pa.
RED E HAUL — Portable power pipe threader and dies. American Die & Tool Co., Inc., Reading, Pa.
RED EDGE—Shovels, scoops, spades and picks. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
RED END—Folding wood rules. The Lufkin Rule Co., Saginaw, Mich.
RED END—Hack saws. Simonds Saw and Steel Co., Fitchburg, Mass.
RED FACE — Reversible ratchet wrench. Lowell Wrench Co., Worcester, Mass.
RED FLASH—Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
RED GIANT—Pneumatic drills. Chicago Pneumatic Tool Co., New York, N. Y.
RED GIANT—Valve cups. Parker Cup & Specialty Works, Inc., Parkers Landing, Pa.
RED HEAD—Chain pipe wrenches. The Billings & Spencer Co., Hartford, Conn.
RED HEAD—Crystolon abrasive file. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
RED HEAD-GOLD BAND — Bale ties. Northwestern Barb Wire Co., Sterling, Ill.
RED HEAD—Lift trucks. Barrett-Cravens Co., Chicago, Ill.
RED HEAD UTILITY FILE — Special shape stone file. Behr-Manning Corp., Troy, N. Y.
RED HEART—Sisal rope. The Hooven & Allison Co., Xenia, Ohio.
RED-RED—Oil well chain. Link-Belt Co., Chicago, Ill.
RED JUNIOR—Lift trucks. Barrett-Cravens Co., Chicago, Ill.
RED LETTER — Soldering flux (liquid). The Ruby Chemical Co., Columbus, Ohio.
RED LINE—Differential hoists. Clinton E. Hobbs Co., Boston, Mass.
RED NUT—Pipe wrenches. Henry & Allen, Inc., Auburn, N. Y.
RED READING MERCURY — Thermometers. The Palmer Co., Cincinnati (St. Bernard), Ohio.
RED RIPPERS—Truing tools. The Ross Mfg. Co., Cleveland, Ohio.
RED ROSE—Packing. Home Rubber Co., Trenton, N. J.
RED SEAL—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
RED SHIELD—High speed drills. Standard Tool Co., Cleveland, Ohio.
RED SHIELD—Transmission belting and air hose. The Mechanical Rubber Co., Passaic, N. J.
RED SOCKET—Reversible ratchet wrench. Lowell Wrench Co., Worcester, Mass.
RED STREAK — Hacksaws, machine knives, tool holder bits, flat ground stock. Simonds Saw and Steel Co., Fitchburg, Mass.
RED STREAK—Hand lift trucks. The Yale & Towne Mfg. Co. (Philadelphia Div.), Philadelphia, Pa.
RED STREAK — Portable electric drills and grinders. Wappat, Inc., Pittsburgh, Pa.
RED TAG—Fence and gates. Cyclone Fence Co., Waukegan, Ill.
RED TANG—File. Simonds Saw and Steel Co., Fitchburg, Mass.
RED TIP—Rods. Mueller Brass Co., Port Huron, Mich.
RED TOP—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
RED TOP—Thermo-regulators. H-B Instrument Co., Inc., Philadelphia, Pa.
REDDCOM—Linen hose. Fenwick-Reddaway Mfg. Co., Newark, N. J.
REDDY READER — Thermometers. H-B Instrument Co., Inc., Philadelphia, Pa.
REDFIN—Hose. Electric Hose & Rubber Co., Wilmington, Del.
REDISC—Cement. Charles H. Besly & Co., Chicago, Ill.
REDLER — Conveyor elevators for belt conveyors. Stephens-Adamson Mfg. Co., Aurora, Ill.
REDRIB—Hose. Electric Hose & Rubber Co., Wilmington, Del.
REDSNAKE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
REELITE—Automatic take-up reels for electric cable. Appleton Electric Co., Chicago, Ill.
REGAL—Engine lathe. R. K. Le Blond Machine Tool Co., Cincinnati, Ohio.
REGENT—Asbestos rod packing. The Darcoid Co., Inc., New York, N. Y.
REGENT — Machinery steels. Crucible Steel Co. of America, New York, N. Y.
REGO—Welding equipment. Bastian-Blessing Co., Chicago, Ill.
REGOROD—Welding rods, fluxes and electrodes. The Bastian-Blessing Co., Chicago, Ill.
REGRIND-RENEW — Valves. Jenkins Bros., New York, N. Y.
REHANCE—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, Ohio.
REID—Drill chucks. R. H. Brown & Co., New Haven, Conn.
REILLY — Steam pumps. Vogt Brothers Mfg. Co., Louisville, Ky.
REK-TANG—Wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
RELIABLE—Drains, etc. Fee & Mason Mfg. Co., Inc., New York, N. Y.
RELIABLE—Extension ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
RELIABLE—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
RELIABLE (The)—Pop safety valves. Consolidated Brass Co., Detroit, Mich.
RELIABLE—Ratchet grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
RELIANCE—Bushings and bearings. Metal Saw & Machine Co., Inc., Springfield, Mass.
RELIANCE—Chains. The Jeffrey Manufacturing Co., Columbus, Ohio.
RELIANCE—Drills. New Process Twist Drill Co., Taunton, Mass.
RELIANCE—Drill rods. Pittsburgh Tool Steel Wire Co., Monaca, Pa.
RELIANCE—Leather belting, dressing, etc. Chicago Belting Co., Chicago, Ill.
RELIANCE — Measuring tapes. Eugene Dietzgen Co., Chicago, Ill.
RELIANCE — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco.
RELIANCE — Shears, etc. The W. H. Compton Shear Co., Newark, N. J.
RELIANCE—Spring washers, woodruff and machine keys, taper pins, etc. Eaton Manufacturing Co. (Reliance Spring Washer Division), Massillon, Ohio.
REMCO—Individual motor drives, automotive replacement parts, valves, pump shafts, etc. Manley Products Corp., York, Pa.
REMUV-ALL—Wire brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
RENEWO—Bronze, globe, angle, cross, check and blow-off valves and gauge cocks. The Lunkenheimer Co., Cincinnati, Ohio.
RENOLD-BOSTON — Silent and roller chain drives. Boston Gear Works, Inc., North Quincy, Mass.
RENSHAW—Ratchet drills. Pratt & Whitney Co., Hartford, Conn.
REPLATE—Brass valves, globe, "Y" and gage cocks. Central Valve Co., Chicago.
RESCUE—Fire extinguishers. American-LaFrance and Foamite Corp., Elmira, N. Y.
RESCUE—Hose. Hewitt Rubber Corp., Buffalo, N. Y.
RESEARCH — Leather belting and belt dressing. Graton & Knight Co., Worcester, Mass.
RESISTAL—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RESISTAL—Stainless steels. Crucible Steel Co. of America, New York, N. Y.
RESISTO—Concrete floor hardener. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
RESISTOR—Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
RESTLESS-STEEL—Platform trucks. The Service Caster & Truck Co., Albion, Mich.
RETAN—Waterproof leather belting. The Taylor Belting Co., Indianapolis, Ind.
RETAN SEA LION—Leather belting. Chicago Belting Co., Chicago, Ill.
RETSUL—Cleaner, polish, etc. Minnesota Mining & Mfg. Co., St. Paul, Minn.
REVERSO—Bronze nickel seat valves. The D. T. Williams Valve Co., Cincinnati, O.
REVOLVING HEAD—Fire hydrants. Vogt Brothers Mfg. Co., Louisville, Ky.
"REX AA" and "AAA"—High speed steel. Crucible Steel Co. of America, New York.
REX—Aluminum oxide grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
REX — Asbestos packing and gaskets. Crandall Packing Co., Palmyra, N. Y.
REX—Gages. Greenfield Tap and Die Corp., Greenfield, Mass.
REX—Mixers, pavers, pumps, saw rigs, elevators, conveyors, chains and transmission equipment. Chain Belt Co., Milwaukee, Wis.
REX—Ply goods. John Rauschenberger Co., Milwaukee, Wis.
REX—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
REX-SOPERVAN—High speed steel. Crucible Steel Co. of America, New York.
REX-TAN — Leather belting. Bonner & Barnewall, Inc., New York, N. Y.
REXALL STORE SERVICE—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
REXITE—Rod packing. New York Belting & Packing Co., Passaic, N. J.
RHENAG—Gauge glasses. Chicago Engineer Supply Co., Chicago, Ill.
RHODES — Metallic packing. Rhopac Products Corp., Chicago, Ill.
RIALTO — Elevator buckets. Link-Belt Co., Chicago, Ill.
RIBBED—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RICE—Flue brush. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
RICE'S FLOW-ON—Interior white paint. U. S. Gutta Percha Paint Co., Providence, R. I.
RICHARDS—Oilers. Atlas-Ansonia Co., New Haven, Conn.
RICHARDSON—Slide rules. Gilson Slide Rule Co., Stuart, Fla.
RICHARDSON ELASTIC—Shellac wheels. Waltham Grinding Wheel Co., Waltham, Mass.
RICHTAL—Track drills, car movers and tie boring machines. Tallman Manufacturing Co., Shelbyville, Ill.
RICK — Cocks, valves, fittings, etc. The Rickersberg Brass Co., Cleveland, Ohio.
RIDCOIL—Threading oil. The Ridge Tool Co., Elyria, Ohio.
RIDGID—Wrenches, cutters, vises, vise stands, etc. The Ridge Tool Co., Elyria, Ohio.
RIDORAY—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RIDORISK—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RIDODUST—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RIEEL—Wire wheel sections. The Osborn Manufacturing Co., Cleveland, Ohio.
RIFCO—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RIGIDBACK — Serrated blade cutters. Cowles Tool Co., Cleveland, Ohio.
RIGIDMIL — Milling machines. Sundstrand Machine Tool Co., Rockford, Ill.
RING—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
RING TRUE—Babbit. Michigan Smelting & Refining Co., Detroit, Mich.
RINO—Waterproof leather belting and cement. Bonner & Barnewall, Inc., New York, N. Y.
RISERTHERM—Boiler control. The Mercoid Corp., Chicago, Ill.
RITE-SPEED—Floor grinders. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
RITEX—Chrome, magnesite brick. General Refractories Co., Philadelphia, Pa.
RIVAL—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
RIVETLESS — Chains. Link-Belt Co., Chicago, Ill.
RO-TWIN—Two-stage rotary air compressor. Allis-Chalmers Manufacturing Co., West Allis, Wis.
ROADBUILDERS—Hose. Goodall Rubber Co., Philadelphia, Pa.
ROBERTSON'S ECONOMY—Power hack saw machines. W. Robertson Machine and Foundry Co., Buffalo, N. Y.
ROBIN — Hose. Electric Hose & Rubber Co., Wilmington, Del.
ROBINSON—Braiding machines. Andrew C. Campbell, Division of American Chain Co., Inc., Bridgeport, Conn.
ROC OAK—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
ROCHESTER — Force feed lubricators. Greene, Tweed & Co., New York, N. Y.
ROCKET — Rubber belting. Degen-Fiege Belting Co., Los Angeles, Calif.
ROCK CORK — Cold insulation. Johns-Manville, New York, N. Y.
ROCK DRILL—Water valves. The Lunkenheimer Co., Cincinnati, Ohio.
ROCKER JOINT — Transmission chain. Morse Chain Co., Ithaca, N. Y.
ROCKFORD — Drilling and boring machines. Rockford Drilling Machine Div. Borg-Warner Corporation, Rockford, Ill.
ROCKWOOD—Pulleys, fibre and iron friction wheels, fibre link mats, belt dressing, v-belts and sheaves, pivoted motor bases. Rockwood Mfg. Co., Indianapolis, Ind.
RODTITE—Asbestos metallic packing. The Darcoid Co., Inc., New York, N. Y.

ROLLER CUSHION—Loom straps. E. H. Jacobs Manufacturing Co., Danielson, Conn.
ROLLER-UNDERDRY — Gates. R. H. Beaumont Co., Philadelphia, Pa.
ROLLERINE—Bearing grease. Royersford Foundry & Machine Co., Royersford, Pa.
ROLLERPLANE—Speed reducer. Swayne-Robinson & Co., Richmond, Ind.
ROME—Steel tubing. Peter A. Frasse & Co., Inc., New York, N. Y.
ROOF-SHIELD — Roof cement. Ensign Products Co., Cleveland, Ohio.
ROOTS-CONNERSVILLE — Blowers, gas pumps, valves, etc. Roots-Connersville Blower Corp., Connersville, Ind.
ROPE & CORDAGE FILLER—Rope drive dressing. F. Raniville Co., Grand Rapids, Mich.
ROPER—Pumps, water supply systems, etc. Geo. D. Roper Corp., Rockford, Ill.
ROSS—Hydrant thawing device. American-LaFrance and Foamite Corp., Elmira, N. Y.
ROTA-ROLL — Pump. Sundstrand Machine Tool Co., Rockford, Ill.
ROTOR LIFT—Vertical screw elevator. Link-Belt Co., Chicago, Ill.
ROTUREO—Pumps. Manistee Iron Works Co., Manistee, Mich.
ROUGHRIDER — Fire extinguishers. American-LaFrance and Foamite Corp., Elmira, N. Y.
ROUND — Tire chains. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
ROUND AUTO BLOC — Roller bearing hoists. David Round & Son, Cleveland, Ohio.
ROUSSELLE—Bench punch press. David J. Ross Co., Benton Harbor, Mich.
ROYAL—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
ROYAL — Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
ROYAL—Fire hose racks and reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
ROYAL—Hardening powder. Anti-Borax Compound Co., Fort Wayne, Ind.
ROYAL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
ROYAL — Packing. Home Rubber Co., Trenton, N. J.
ROYAL — Plumbers' oakum. American Manufacturing Co., Brooklyn, N. Y.
ROYAL BOOSTER — Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
ROYAL EXTRA—Leather belting. Chas. A. Schieren Co., New York, N. Y.
ROYAL MONARCH — Leather belting. Couse & Bolten, Inc., Newark, N. J.
ROYAL OAK—Leather belting. Smyth-Despard Co., Utica, N. Y.
ROYAL RED—Transmission belting and garden hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
ROYAL SUPERIOR—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
ROYAL WORCESTER—Fire and track brooms. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
ROYAL WORCESTER—Lace leather, belt dressing, etc. Graton & Knight Co., Worcester, Mass.
RUBBER COATING—Belt treatment. F. Raniville Co., Grand Rapids, Mich.
RUBBER-ITE—Stitched canvas and solid woven cotton belting. McIlroy Belting Works, Hammond, Ind.
RUBEROID — Cements, coatings, felt, paint, roofing and asbestos paper, etc. The Ruberoid Co., New York, N. Y.
RUBRO — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
RUBWET — Waterproof crystolon paper sheets. Armour Sand Paper Works, Chicago, Ill.
RUBY—Oils and greases. D. A. Stuart Oil Co., Chicago, Ill.
RUBY—Gasket packing. New York Belting & Packing Co., Passaic, N. J.
RUBY-RUB—Metal polish. Hinds and Coon Co., Boston, Mass.
RUBYFLUID—Soldering flux, acid and resin core solder. The Ruby Chemical Co., Columbus, Ohio.
RUF-NEK—Oil well pumping unit. Link-Belt Co., Chicago, Ill.
RUGGEDWEAR RESURFACER — Patching cement. Flexrock Co., Philadelphia, Pa.
RUMSEY—Pumps. Rumsey Pump Corp., Seneca Falls, N. Y.
RUN RITE—Casters. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.
RURAL—Lubricators. Essex Brass Corp., Detroit, Mich.
RUSCO—Brake lining, clutch facings and belting. Russell Manufacturing Co., Middletown, Conn.
RUSGO—Rust solvent. Babbitt Steam Specialty Co., New Bedford, Mass.
RUSSELL — Protective and working gloves. The Frank Russell Glove Co., Berlin, Wis.
RUSSO—Asbestos sheet packing. A. W. Chesterton Co., Boston, Mass.
RUST CUTTER—Penetrating oil. Whiting Leather & Belting Co., Long Island City, N. Y.
RUST PROOF BESSEMER—Paint. H. Rinald Co., Philadelphia, Pa.
RUST-PRUF — Primer and production undercoats. The Rust-Pruf Co., Chicago, Ill.
RUSTSOLVO—Rust dissolvent. Advance Packing & Supply Co., Chicago, Ill.
RUSTVOID—Rust preventive. Whiting Leather & Belting Co., Long Island City, N. Y.
RYER—Alloy steel. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
RYERSON—Hose reels. W. D. Allen Mfg. Co., Chicago, Ill.

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S (in diamond)—Sisal rope, twines and yarns. The Edwin H. Fitler Co., Philadelphia, Pa.
S-A—Anti-acid valves. The Lunkenheimer Co., Cincinnati, Ohio.
S. B. BORELON—Grinding wheels. Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
S & C—Belt hooks. F. P. Smith & Co., Sharon Hill, Pa.
S-C—Power plant equipment. The Swartwout Co., Cleveland, Ohio.
S. C. & K.—Industrial furnaces, melting pots and tanks. The Strong, Carlisle & Hammond Co., Cleveland, Ohio.
S-F—Vacuum valves. Efficiency Engineering Co., Boston, Mass.
SF—Torches, regulators, hose, goggles, helmets, rod and welding accessories. Sight Feed Generator Co., Richmond, Ind.
S & H—Tools. Crescent Tool Co., Jamestown, N. Y.
SK—Jets. Schutte & Koerting Co., Philadelphia, Pa.
SKF—Ball bearing and transmission appliances. S. K. F. Industries, Inc., New York, N. Y.
S. & S.—Belt hooks. F. P. Smith & Co., Sharon Hill, Pa.
SS-PLUS—Chains. Link-Belt Co., Chicago, Ill.
S&S—Friction clutches. A. L. Schultz & Sons, Chicago, Ill.
SSS—Hose, belting, boots, etc. Goodall Rubber Co., Philadelphia, Pa.
S-V — Electrically driven oxy-acetylene cutting machines. Jos. C. Paulus & Co., Philadelphia, Pa.
SABECO—Bushings, bearings, etc. Fredericksen Co., Saginaw, Mich.
SABRE—Leather belting. McCauley Belting Co., Chicago, Ill.
SACHEM—Sash cord. Samson Cordage Works, Boston, Mass.
SACO—Cotter pins. F. P. Smith & Co., Sharon Hill, Pa.
SACON—Belt conveyor carriers. Stephens-Adamson Mfg. Co., Aurora, Ill.
SAFE-T-BOND—Synthetic resin wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
SAFE-T-HEAD — Pins and rivets for chains. Link-Belt Co., Chicago, Ill.
SAFETOP—Fire hydrants. The Kennedy Valve Manufacturing Co., Elmira, N. Y.
SAFETY—Ash and oily waste cans, etc. Dover Stamping & Mfg. Co., Cambridge, Mass.
SAFETY PLUS—Socket set and head cap screws, stripper bolts, socket wrenches, etc. The Chicago Screw Co., Chicago, Ill.
SAFETY-SERVICE—Safety clothing and miscellaneous items of safety. The Safety Equipment Service Co., Cleveland, Ohio.
SAFSTICK—Bar belt dressing. Beltonic Products Co., Chicago, Ill.
SAFTY SAW—Portable sawing machines. D. W. Onan & Sons, Minneapolis, Minn.
SAGAMORE — Belting. Hewitt Rubber Corp., Buffalo, N. Y.
ST. LOUIS—Fire clay brick. General Refractories Co., Philadelphia, Pa.
ST. LOUIS—Grinders and polishing machines. Cutter Machine Co., St. Louis, Mo.
SAIRSET—High temperature cements. A. P. Green Fire Brick Co., Mexico, Mo.
SAL BRICK—Solid sal-ammoniac. American Solder & Flux Co., Philadelphia, Pa.
SALEM—Elevator buckets. Link-Belt Co., Chicago, Ill.
SAMOLINE—Paste cleaner. The A. S. Boyle Co., Cincinnati, Ohio.
SAMPSON—Extension ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
SAMPSON—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
SAMPSON — Leather belting. McLeod Leather & Belting Co., Greensboro, N. C.
SAMSON—Car movers. Rowell Mfg. Co., Appleton, Wis.
SAMSON—Coil and side chain. The Hodell Chain Co., Cleveland, Ohio.
SAMSON — Lifting jacks. Oliver-Barth Jack Co., Milwaukee, Wis.
SAMSON—Steel shot. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
SAMSON (HAIRON)—Textile leathers and round belting. D. P. Brown & Co., Philadelphia, Pa.
SAMSON—Wire brushes. Albert E. Rinn Co., Allentown, Pa.
SAMSON STEEL SHOT—Steel grit and shot. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
SANCO BRAND—Wiping and polishing material. Sanitary Washed Wiper Co., Indianapolis, Ind.
SANDERSON—Carbon tool steels. Crucible Steel Co. of America, New York.
SANDOW—Belting, hose and packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
SANFORD—Trowels, putty knives, scrapers, etc. Atlas-Ansonia Co., New Haven, Conn.
SANI SNAKE—Plumbers tools, closet augers and pipe cleaners. Stow Manufacturing Co., Binghamton, N. Y.
SANITAL—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
SARATOGA—Die steel. Ludlum Steel Co., Watervliet, N. Y.
SARCO—Steam traps, strainers, regulators, valves. Sarco Company, Inc., New York, N. Y.
SARB—Geared and plain trolleys. Ford Chain Block Co., Philadelphia, Pa.
SARVA—Acid-resisting paint. American Asphalt Paint Co., Chicago, Ill.
SATURN—Belting. Hewitt Rubber Corp., Buffalo, N. Y.
SAUER-EISEN—Cements and compounds. Sauereisen Cements Co., Pittsburgh, Pa.
SAVA POWR — Lubricating oils and greases. American Oil & Grease Corp., Chicago, Ill.
SAVAL—Funnels and measures. Dover Stamping & Mfg. Co., Cambridge, Mass.
SAVE MET—Dross reducer. Federated Metals Corp., New York, N. Y.
SAW MASTER—Portable electric combination woodworking machines. Master Woodworker Mfg. Co., Detroit, Mich.
SAWMILL SPECIAL—Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SAXON—Hose. Goodall Rubber Co., Philadelphia, Pa.
SCHAEFER — Brushes. Schaefer Brush Mfg. Co., Milwaukee, Wis.
SCHAEFER BYPASS—Traps, reducing temperature control valves, pump governors and regulators, etc. H. Belfield Co., Philadelphia, Pa.
SCHENCK TYPE — Elevator buckets. Link-Belt Co., Chicago, Ill.
SCHICK — Paper balers. Micro-Westco, Inc., Bettendorf, Iowa.
SCHRAMM—Air compressors. Schramm, Inc., West Chester, Pa.
SCIOTA—Flax packing and spray hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
SCIOTO—Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
SCOTCH—Masking tape. Minnesota Mining & Mfg. Co., St. Paul, Minn.
SCOURFE—Metal polish. The Grady Mfg. Co., Long Island City, N. Y.
SCREW SHOOTER — Electric screw driver. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SCREWNAILS — Hardened screw nails. Parker-Kalon Corp., New York, N. Y.
SCRIVON — Leather belting. Keystone Belting Co., Philadelphia, Pa.
SCRUINS—Screw anchors. Star Expansion Bolt Co., New York, N. Y.
SCULLY RUGGLES PERFECTION — Valve guide cleaners. Scully Steel & Iron Co., Chicago, Ill.
SEA BEE—Waterproof leather belting. Couse & Bolten, Inc., Newark, N. J.
SEA-LECT—Waterproof belting. Keystone Belting Co., Philadelphia, Pa.
SEA LION—Leather belting, cement and neat's foot. Chicago Belting Co., Chicago, Ill.
SEA LION BELT OIL—Belt dressing. Chicago Belting Co., Chicago, Ill.
SEA RING—Packings and gaskets. Johns-Manville, New York, N. Y.
SEADER—Injectors, ejectors and valves. The Randle Machinery Co., Cincinnati.
SEAL-AIDE — Gasket compound. Victor Manufacturing & Gasket Co., Chicago, Ill.
SEAL-CLAD—Protected winding squirrel cage motors. Allis-Chalmers Manufacturing Co., West Allis, Wis.
SEAL ROCK—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SEALEDGED—Radio grid screen. Newark Wire Cloth Co., Newark, N. J.
SEARIGHT—Mechanics' shears. Bartlett Manufacturing Co., Detroit, Mich.
SEA-TREATED—Manila rope. The Edwin H. Fitler Co., Philadelphia, Pa.
SEAT OF PRODUCTION (THE)—Factory chairs and stools. Royal Metal Mfg. Co., Chicago, Ill.

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SEBCO—Expansion anchors and bolts, drills, nails, toggles, etc. Star Expansion Bolt Co., New York, N. Y.
SECATOR—Electrically driven oxy-acetylene cutting machines. Joseph C. Paulus & Co., Philadelphia, Pa.
SECRET SERVICE—Padlocks. Master Lock Co., Milwaukee, Wis.
SECTIONAL FLIGHT—Spiral screw conveyors. Link-Belt Co., Chicago, Ill.
SECURITY—Ball joints. The Chicago Screw Co., Chicago, Ill.
SECURITY—Concrete inserts. Security Insert Co., Philadelphia, Pa.
SECURO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
SEIGELITE — Packings and gaskets. Johns-Manville, New York.
SELCLO—Valves. Jenkins Bros., New York, N. Y.
SELECTIVE HEAD—Lathes. The Lodge & Shipley Machine Tool Co., Cincinnati.
SELF GRINDING—Chasers. Armstrong Mfg. Co., Bridgeport, Conn.
SELF-TOPPING — Sheet metal saws. Parker-Kalon Corp., New York, N. Y.
SELFVULC — Plastic rubbers and liquid rubber compounds. Self-Vulcanizing Rubber Co., Inc., Chicago, Ill.
SELLS — Roller bearings. Royersford Foundry and Machine Co., Royersford, Pa.
SEMALU—High aluminum brick. General Refractories Co., Philadelphia, Pa.
SEMIBRONZE—Piston packing, asbestos metallic gaskets, etc. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
SEMINOLE — Steel. Ludlum Steel Co., Watervliet, N. Y.
SENATE—Hose. Goodall Rubber Co., Philadelphia, Pa.
SENATOR—Fire hose. Pioneer Rubber Mills, San Francisco, Calif.
SENECA — Hose. Goodall Rubber Co., Philadelphia, Pa.
SENIOR—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
SENSATHERM—Thermostats. The Mercoid Corp., Chicago, Ill.
SENTINEL—Oil cup. Loane Engineering Co., Baltimore, Md.
SENTINEL—Hose. Goodall Rubber Co., Philadelphia, Pa.
SENTINEL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
SERPENTINE—Hose. Home Rubber Co., Trenton, N. J.
SERVICE—Casters and trucks. The Service Caster & Truck Co., Albion, Mich.
SERVICE — Elevator belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
SERVICE—Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
SERVICE—Packings and gaskets. Johns-Manville, New York, N. Y.
SERVICE—Rubber coats. Goodall Rubber Co., Philadelphia, Pa.
SERVICE—Special alloy hack saw blades. W. O. Barnes Co., Inc., Detroit, Mich.
SERVICE-AMERICAN—Hand trucks. The Service Caster & Truck Co., Albion, Mich.
SERVICE BRAND—Conveyor belts. Link-Belt Co., Chicago, Ill.
SESURE—Water gauges. Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.
7716—Twist drills. National Twist Drill & Tool Co., Detroit, Mich.
SETTE—Oil faucets. Imperial Brass Mfg. Co., Chicago, Ill.
SHARK BRAND—Chisels, gouges and plane irons. Sandvik Saw and Tool Corp., Minneapolis, Minn.
SHEARCUT—Spiral flute taps. Standard Tool Co., Cleveland, Ohio.
SHEAR-KUT—Valve seat cutters. Millersburg Reamer & Tool Co., Millersburg, Pa.
SHEDITE—Waterproof leather belting. I. B. Williams & Sons, Dover, N. H.
SHELBURNE—Tools. Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
SHELBY—Steel tubing. Peter A. Frasse & Co., Inc., New York, N. Y.
SHELDON—Car movers. The Aldon Co., Chicago, Ill.
SHEPARD—Vises. Prentiss Vise Co., New York, N. Y.
SHERIFF—Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
SHERMAN—Brass hose goods, pipe fittings, fixture connectors, ground connector clamps, etc. H. B. Sherman Mfg. Co., Battle Creek, Mich.
SHERMAN — Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, O.
SHIELD — Leather belting. McCauley Belting Co., Chicago, Ill.
SHIELD—Machine knives. Taylor, Stiles & Co., Riegelsville, N. J.
SHIELD ARC—Welders and welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
SHIELD BRAND—Twist drills, reamers, cutters, taps, dies, drill chucks and special tools. The Standard Tool Co., Cleveland, Ohio.
SHOK-PRUF-LOX—Door lock sets, etc. Milwaukee Hardware Co., Wm. Bolles, Prop., Milwaukee, Wis.
SHORT LAP—Leather belting. W. S. Nott Co., Minneapolis, Minn.
SHORTWALOADER—Loaders. The Jeffrey Manufacturing Co., Columbus, Ohio.
SHOVEL-BARROW — Barrows. Shovel-Barrow Co., Chicago, Ill.
SHUR-BRITE — Metal polish. Ensign Products Co., Cleveland, Ohio.
SHUR-FLO—Oil cups. Hunter Pressed Steel Co., Lansdale, Pa.
SHUR-GRIP—File and solder iron handles. Parker-Kalon Corp., New York.
SHUR-KLEEN—Oil soap. Ensign Products Co., Cleveland, Ohio.
SHURLOX—Lock washers. The Washburn Co., Worcester, Mass.
SHUR MIST—Garden hose nozzle. Consolidated Brass Co., Detroit, Mich.
SHUSTER—Shovels, spades and scoops. Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
SIBLEYWARE—Drilling machines. Sibley Machine & Foundry Co., South Bend, Ind.
SIDELING—Steam traps. Nason Manufacturing Co., New York, N. Y.
SIEBEN—Grease traps, etc. Prier Brass Mfg. Co., Kansas City, Mo.
SIGMA STEEL—Valves, pipe fittings and flanges. Walworth Co., New York, N. Y.
SIGNAL—Fans, ventilators, motors, bells, buzzers and drills. Signal Electric Mfg. Co., Menominee, Mich.
SIGNAL—Glass body oilers. The Wm. Powell Co., Cincinnati, Ohio.
SIGNAL MASTER—Sirens. E. D. Bullard Co., San Francisco, Cal.
SIGNET—Compression stops, and stops and drains. Hays Manufacturing Co., Erie, Pa.
SIL-FOS—Brazing alloy. Handy & Harman, New York, N. Y.
SIL-O-CEL — Insulation. Johns-Manville, New York, N. Y.
SILCROME — Stainless steels. Ludlum Steel Co., Watervliet, N. Y.
SILKITE — Lap powder. Behr-Manning Corp., Troy, N. Y.
SILVER BEAUTY—Floor waxer. The Osborn Manufacturing Co., Cleveland, Ohio.
SILVER EDGE—Wheel pullers, belts, riveting machines, etc. Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
SILVER GENUINE—Babbitt metal. Merchant & Evans Co., Philadelphia, Pa.
SILVER KING—Conveyor belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
SILVER LAKE—Solid braided cordage. Silver Lake Co., Chattahoochee, Ga.
SILVER STEEL—Saws. E. C. Atkins and Co., Indianapolis, Ind.
SILVERLINK—Roller chain. Link-Belt Co., Chicago, Ill.
SILVERSEAL—Wire-mesh reinforced asbestos sheet packing. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
SILVERSTREAK — Silent chain drives. Link-Belt Co., Chicago, Ill.
SIMANG—Drift pins. Bonney Forge & Tool Works, Allentown, Pa.
SIMONDS—Saws, machine knives, files, etc. Simonds Saw & Steel Co., Fitchburg, Mass.
SIMPLATE—Valves for air compressors Chicago Pneumatic Tool Co., New York, N. Y.
SIMPLE—Single steam pumps. Dean Brothers Co., Indianapolis, Ind.
SIMPLEX—Alloy forging steel. Crucible Steel Co. of America, New York, N. Y.
SIMPLEX—Belt conveyor carriers. Stephens-Adamson Mfg. Co., Aurora, Ill.
SIMPLEX—Bench and floor grinders. Wales Sales Corp., New York, N. Y.
SIMPLEX—Chain hoists. Speidel Elevator Corp., Reading, Pa.
SIMPLEX—Jacks, trench braces and pump pushers. Templeton, Kenly & Co., Chicago, Ill.
SIMPLEX—Leather belting. E. P. Alexander & Son, Inc., Clifton Heights, Pa.
SIMPLEX—Steam pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
SIMPLEX—Tank gauges. Viking Pump Co., Cedar Falls, Iowa.
SIMPLEX—Time recorder, stamps and card racks. Simplex Time Recorder Co., Gardner, Mass.
SIMPLEX—Vises. Desmond-Stephens Mfg. Co., Urbana, Ohio.
SIMPLEX—Water feeders. Nason Manufacturing Co., New York, N. Y.
SIMPLIMATIC — Automatic chucking lathes. Gisholt Machine Co., Madison, Wis.
SINDEN—Box car loaders. Stephens-Adamson Mfg. Co., Aurora, Ill.
SINEW—Leather belting. Detroit Oak Belting Company, Detroit, Mich.
SINGER—Glass cutters. Wm. L. Barrett Co., Bristol, Conn.
SIRACODE—Sirens. E. D. Bullard Co., San Francisco, Cal.
SIROCCO—Fans and unit heaters. American Blower Corp., Detroit, Mich.
SIRTAN—Flat belting. J. E. Rhoads & Sons, Philadelphia, Pa.
SIRVIS—Packing leathers. The Chicago Rawhide Mfg. Co., Chicago, Ill.
600—Graphite cylinder oil. The Franklin Oil & Gas Co., Bedford, Conn.
602—Steel. Ludlum Steel Co., Watervliet, N. Y.
SIXCEL—Pipe and boiler covering. Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
SKAYEF—Ball bearings, hangers, pillow blocks, replace boxes. S. K. F. Industries, Inc., Philadelphia, Pa.
SKILSAW—Portable electric drills, hand saws and other electric tools. Skilsaw, Inc., Chicago, Ill.
SKINNER—Chucks, air chambers and air valves. The Skinner Chuck Co., New Britain, Conn.
SKINNER—Pipe joint, pipe repair, collar leak clamps and valve resisting tools. M. B. Skinner Co., South Bend, Ind.
SKOOKUM—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SKULLGARD — Protective hats. Mine Safety Appliances Co., Pittsburgh, Pa.
SKY SERVICE HI DUTY CONNECTIONS—Copper tube couplings. Imperial Brass Manufacturing Co., Chicago, Ill.
SLAB BURNER—Boilers. A. B. Farquhar Co., Ltd., York, Pa.
SLIP—Pump valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SLO-SPEED—Drill presses. Delta Manufacturing Co., Milwaukee, Wis.
SLUGIN—Bolt anchors. Star Expansion Bolt Co., New York, N. Y.
SMITH—Rail benders. Tallman Manufacturing Co., Shelbyville, Ill.
J. BARTON SMITH—Files and rasps. Nicholson File Co., Providence, R. I.
SMITH MULTIPLEX PRESSURE—Railroad devices. The Clark Manufacturing Co., Philadelphia, Pa.
SMITH PATENT—Belt fasteners. H. D. Edwards & Co., Detroit, Mich.
SMITH PATENT ADJUSTABLE—Round dies. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
SMITH TYPE—Friction clutches. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
SMOKE SLACK BLACK—Paint. A. C. Horn Co., Long Island City, N. Y.
SMOOTH-ARC — Electric welders and welding rods. Harnischfeger Corp., Milwaukee, Wis.
SMOOTH-KUT—Reamers and valve seat cutters. Millersburg Reamer & Tool Co., Millersburg, Pa.
SNOW—Steam pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
SNOWDRIFT—Wiping waste and rags. Sweetland Waste Co., Inc., Canton, Mass.
SO-EASY — Portable hang-up. Eagle Manufacturing Co., Wellsburg, W. Va.
SOC-KIT—Socket wrench sets. Keystone Mfg. Co., Buffalo, N. Y.
SOCONY—Industrial petroleum products. The Standard Oil Co. of New York, New York, N. Y.
SOLAR—Packing. Home Rubber Co., Trenton, N. J.
SOLARITE—Kalsomine. The Reardon Co., St. Louis, Mo.
SOLDER-MASTER — Hexacon Appliance Corp., Roselle Park, N. J.
SOLID EDGE—Corrugated matting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SOLID STEEL—Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
SOLVOL—Boiler compound. Duryea Manufacturing Co., Bayonne, N. J.
SOLVIT—Cleaners. The Hollow Center Packing Co., Cleveland, Ohio.
SONDERGLASS—Gauge glasses. A. W. Chesterton Co., Boston, Mass.
SOOT EJECTOR and **SOOT SUCKER**—Boiler tube and flue cleaners. William H. Murray, Brooklyn, N. Y.
SOUTH BEND—Drilling machines. Sibley Machine Co., South Bend, Ind.
SOUTHERN—Drag scrapers. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
SOUTHLAND—Steel products. Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
SOVEREIGN—Sheet and rod packing. The Darcoid Co., Inc., New York, N. Y.
SPANDO—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SPARTAN—Hose. The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J.
SPARTAN—Sisal rope. American Manufacturing Co., Brooklyn, N. Y.
SPARTAN MOLDED—Brake linings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

SPARTON—Alcohol mouth blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
SPASAVER—Work benches. W. C. Toles Co., Woodstock, Ill.
SPECIAL No. 13 and No. 9.—Abrasive wheels. Vitrified Wheel Co., Westfield, Mass.
SPECIAL "W"—Automotive babbitt. Magnolia Metal Co., Elizabeth, N. J.
SPECIFICATION—Leather belting. W. S. Nott Co., Minneapolis, Minn.
SPEE-DEE (#11)—Grinders. The Dumore Co., Racine, Wis.
SPEED—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
SPEED-GRITS — Sandpaper combination. Behr-Manning Corp., Troy, N. Y.
SPEED-UP—Tools. Stevens Walden, Inc., Worcester, Mass.
SPEED-WET—Waterproof sandpaper. Behr-Manning Corp., Troy, N. Y.
SPEEDAGE—Fabric flat belts. L. H. Gilmer Co., Tacony, Philadelphia, Pa.
SPEEDBARROW—Wheelbarrows. General Wheelbarrow Co., Cleveland, Ohio.
SPEEDER—Hammer mill special belting. The Hettrick Mfg. Co., Toledo, Ohio.
SPEEDIZED—Wood screws. Elco Tool & Screw Corp., Rockford, Ill.
SPEEDO—Washing powder. Ensign Products Co., Cleveland, Ohio.
SPEEDSTER—Portable saw rigs. Jones Superior Machine Co., Chicago, Ill.
SPEEDY—Hole cutting bits. W. A. Whitney Mfg. Co., Rockford, Ill.
SPHERO—Blow-off valves. The Fairbanks Co., New York, N. Y.
SPHINX—Belting, hose, mats and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SPIDER—Rod packing. New York Belting & Packing Co., Passaic, N. J.
SPIDER—Window brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
SPIDER WEBB — Leather belting and dressing. J. A. Webb Belting Co., Inc., Buffalo, N. Y.
SPINTITE—Wrenches. Stevens Walden, Inc., Worcester, Mass.
SPIRAL—Pulley clutches and cut off couplings. Kinney Manufacturing Co., Boston 30, Mass.
SPIRAL LOCK SEAM and **SPIRALWELD**—Pipe. Naylor Pipe Co., Chicago, Ill.
SPIREX—Machine taper pin reamers. The Cleveland Twist Drill Co., Cleveland, O.
SPIRO — Compression shaft couplings. Bond Foundry and Machine Co., Manheim, Pa.
SPRACO — Spray painting equipment. Spray Engineering Co., Somerville, Mass.
SPRAYIT — Paint spraying equipment. The Electric Sprayit Co., South Bend, Ind.
SPRING BEARING—Factory and warehouse trucks. West Bend Equipment Corp., West Bend, Wis.
SPRING HANDLE—Emery and grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
SPRING-HAY—Marine rope (combination wire and hemp). American Cable Co., Inc., Wilkes-Barre, Pa.
SPRING-STEEL—Wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
SPRINGINS—Toggle bolts. Star Expansion Bolt Co., New York, N. Y.
SPRITE—Lubricators. Essex Brass Corp., Detroit, Mich.
SPRUCOLITE—Compressed spruce motor pulleys. The American Pulley Co., Philadelphia, Pa.
SQ. TRIMMED—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
SQUADRON—Rod packing. The Darcold Co., Inc., New York, N. Y.
STA-FAST—Steel wedges for hammer, sledge and axe handles. The Standard Belt Fastener Co., Unionville, Conn.
STA-PAK — Packless radiator valves. Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
STABLE ARC—Welders. The Lincoln Electric Co., Cleveland, Ohio.
STACKER—Belting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
STACKER — Portable elevators. Lewis-Shepard Co., Watertown Station, Boston, Mass.
STAINWELD A AND B—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
STALWART—Hose. Goodall Rubber Co., Philadelphia, Pa.
STAMCO—Pipe and boiler covering, etc. Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
STANBRITE — Galvanizing flux. United American Metals Corp., Brooklyn, N. Y.
STANDARD—Axes, hammers, etc. American Fork & Hoe Co., Cleveland, Ohio.
STANDARD—Belt hooks. Wm. E. Pratt Mfg. Co., Joliet, Ill.
STANDARD—Black belting. The Hettrick Mfg. Co., Toledo, Ohio.
STANDARD—Burners and furnaces. Standard Fuel Engineering Co., Detroit, Mich.
STANDARD—Carriage clamps. The Cincinnati Tool Co., Cincinnati, Ohio.
STANDARD—Counting machines. R. E. Hart Mfg. Co., Battle Creek, Mich.
STANDARD—Cut lacing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
STANDARD — Electrical drills, grinders, buffing and polishing machines. The Standard Electrical Tool Co., Cincinnati.
STANDARD—Fire hydrants. The Kennedy Valve Manufacturing Co., Elmira, N. Y.
STANDARD—Hose. Electric Hose & Rubber Co., Wilmington, Del.
STANDARD—Liquid hand soap. Pacific Chemical Co., Los Angeles, Calif.
STANDARD—Load binders. Advance Car Mover Co., Inc., Appleton, Wis.
STANDARD—Malleable steel and self-aligning belt fasteners. The Standard Belt Fastener Co., Unionville, Conn.
STANDARD — Plumb bobs. Keuffel & Esser Co., Hoboken, N. J.
STANDARD — Refractory cement and silica brick. General Refractories Co., Philadelphia, Pa.
STANDARD — Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
STANDARD — Track levels. Tallman Manufacturing Co., Shelbyville, Ill.
STANDARD—Truck casters. The Metzgar Co., Grand Rapids, Mich.
STANDARD PATTERN—Grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
STANDARD REXALL and **SAHARA**—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
STANEX—Lathyarn. The Hooven & Allison Co., Xenia, Ohio.
STANLEY—Electric tools. Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
STANOCEL—Pipe and boiler covering, etc. Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
STANWELL—Canvas stitched belting. Fenwick-Reddaway Mfg. Co., Newark, N. J.
STAN-WELD—High speed welded blade reamers. Standard Tool Co., Cleveland, Ohio.
STAPAX—Packing and gasket and pipe joint compounds. Rhodes Packing Co., Chatham, N. J.
STAR — Babbitt metal. Rogers Metal Works, Kansas City, Mo.
STAR—Grease cups. American Injector Co., Detroit, Mich.
STAR—Hack saws and band saws. Clemson Bros., Inc., Middletown, N. Y.
STAR—Hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
STAR—Post hole diggers and augers. Wm. E. Pratt Mfg. Co., Joliet, Ill.
STAR—Wheelbarrows and drag scrapers. The Case Crane and Kilbourne Jacobs Co., Columbus, Ohio.
STAR AND CRESCENT—Soldering flux. McGill Manufacturing Co., Valparaiso, Ind.
STAR BRAND—Check straps. Baltimore Belting Co., Baltimore, Md.
STAR BRAND—Flint paper and emery cloth. Baeder-Adamson Co., Philadelphia, Pa.
STAR BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
STAR BRAND—Tackle blocks. Boston & Lockport Block Co., East Boston, Mass.
STAR OF BETHLEHEM—Tool handles. L. W. Strock & Co., Bethlehem, Pa.
STARLAG—Lag screw expansion shields. Star Expansion Bolt Co., New York, N. Y.
STAR MOLY—Molybdenum type hack saws and band saws. Clemson Bros., Inc., Middletown, N. Y.
STARRETT—Gauges, indicators, levels, scales, squares, etc. The L. S. Starrett Co., Athol, Mass.
STEARNS — Magnetic clutches, pulleys, etc. Stearns Magnetic Manufacturing Co., Milwaukee, Wis.
STEEL-ARM—Automatic belt tighteners. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
STEEL BOUND—Skid platforms. The Yale & Towne Mfg. Co. (Philadelphia Div.), Philadelphia, Pa.
STEEL CLAD—Wire wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
STEEL LINK-BELT—Detachable chains. Link-Belt Co., Chicago, Ill.
STEEL MIXTURE—Fire clay arches and high temperature cements, etc. McLeod & Henry Co., Troy, N. Y.
STEEL-VENEER — Granular refractory. Keystone Refractories Co., New York.
STEELBAC—Abrasive discs. Charles H. Besly and Co., Chicago, Ill.
STEELCRAFT — Cap and set screws. Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
STEELFRAME—Pipe wrenches. Threadwell Tap & Die Co., Greenfield, Mass.
STEELEG—Lift truck platforms. Barrett-Cravens Co., Chicago, Ill.
STEELGRIP—Flexible steel belt lacing. Armstrong-Bray & Co., Chicago, Ill.
STEELKLAD — Trucks. Fibre Specialty Mfg. Co., Kennett Square, Pa.
STEEL SOCKET BRIDGE — Reversible ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
STEER—Leather belting. McCauley Belting Co., Chicago, Ill.
STEERBAX—Leather belting and cement. Whiting Leather & Belting Co., Long Island City, N. Y.
STEMFIRE STEMPEL and **STEMPEL FOAM**—Fire fighting devices. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
STEPHAN STICK—Belt dressing. Desmond-Stephan Mfg. Co., Urbana, Ohio.
STERBLUE and **STERBON** — Grinding wheels and blocks. The Sterling Grinding Wheel Co., Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
STERLING—Conveyor belting. The Mechanical Rubber Co., Passaic, N. J.
STERLING—Filter traps, pressure regulators and automatic lubricators. Sterling Products Co., Detroit, Mich.
STERLING—Levels. The Peerless Level & Tool Co., Sterling, Ill.
STERLING—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
STERLING—Nails and wire. Northwestern Barb Wire Co., Sterling, Ill.
STERLING—Packing. Home Rubber Co., Trenton, N. J.
STERLING—Paver air, water and contractors suction hose. New York Belting & Packing Co., Passaic, N. J.
STERLING—Radiator hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
STERLING—Tungsten blades. Dizmond Saw and Stamping Works, Buffalo, N. Y.
STERLING SPEED-BLOC—Sanders. Sterling Products Co., Detroit, Mich.
STERLITH—Grinding wheels and blocks. The Sterling Grinding Wheel Co., Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
STETSON—Chucks. Morse Twist Drill & Machine Co., New Bedford, Mass.
STEVEDORE — Transmission rope with and without hunt adjustable tension couplings. Wall Rope Works, Inc., New York, N. Y.
STEVENS—Fire clay brick. General Refractories Co., Philadelphia, Pa.
STICK TIGHT—Waterproof leather belting. O'Meara Belting Co., Omaha, Neb.
STOCKLAND—Graders. Foote Bros. Gear & Machine Co., Chicago, Ill.
STOCO—Safety goggles. Shur-On Optical Co., Inc., Geneva, N. Y.
STONEWALL—Babbitt. United American Metals Corp., Brooklyn, N. Y.
STONEWALL—Hose. Goodall Rubber Co., Philadelphia, Pa.
STORM PROOF—Roofing sheet metal. Bethlehem Steel Co., Bethlehem, Pa.
STRAIGHT-LINE—Sander. The Dallet Co., Philadelphia, Pa.
STRAIGHTLINE—Sludge, grit and scum collectors, aerators and sewage screens. Link-Belt Co., Chicago, Ill.
STRAIT-LINE—Automatic texrope drive take-up motor base. Allis-Chalmers Manufacturing Co., West Allis, Wis.
STRAIT JACKET BRAND—Leather beltings. F. Raniville Co., Grand Rapids, Mich.
STRAND—Flexible shafts and equipment. N. A. Strand & Co., Chicago, Ill.
STREAMLINE—Fittings and copper pipe. Mueller Brass Co., Port Huron, Mich.
STROLITE—Chain, dogs, etc. The Carroll Chain Co., Columbus, Ohio.
STRONG — Traps, strainers, separators, regulators, etc. The Strong, Carlisle & Hammond Co., Cleveland, Ohio.
STRONG BOY—Padlocks. Master Lock Co., Milwaukee, Wis.
STRONGHOLD—Leather belting, etc. J. E. Rhoads & Sons, Philadelphia, Pa.
STRUCTURAL RIB BOLTS—Rib bolts. Automatic Nut Co., Lebanon, Pa.
STUART—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
STUB—Lathes. Sundstrand Machine Tool Co., Rockford, Ill.
STUBBING—Hand lift trucks. The Yale & Towne Mfg. Co. (Philadelphia Division), Philadelphia, Pa.
SUBMARINE—Waterproof leather belting. Holyoke Belting Co., Holyoke, Mass.
SUBWAY—Hose. Goodall Rubber Co., Philadelphia, Pa.
SUCCESS—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
SUDSOIL NEUTRALINE—Oil soap. Pacific Chemical Co., Los Angeles, Calif.
SULFLO—Cements, compounds, flux, etc. Sulflo Corporation of America, Elizabeth, N. J.

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SULPHURETTE—Compound for copper oxidizing. C. G. Buchanan Chemical Co., Cincinnati, Ohio.
SUMAC—Boiler compound. Imperial Floor Co., Inc., Rochester, N. Y.
SUMMIT—Belting. The B. F. Goodrich Co., Akron, Ohio.
SUMTER—Packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
SUNOCO—Petroleum products. Sun Oil Co., Philadelphia, Pa.
SUNPROOF—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SUNSET—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SUPER—Aluminum solder. The Lenk Mfg. Co., Newton Lower Falls, Mass.
SUPER—Valve reseaters. Jay-Tee Tool Sales Co., Cleveland, Ohio.
SUPER AIR SCREWS—Electric fans and ventilators. Marathon Electric Manufacturing Corp., Wausau, Wis.
SUPER BOB-CAT—Mechanics' hand tools. Hinsdale Manufacturing Co., Chicago, Ill.
SUPER-BUILT—Aluminum floats. Arthur Harris & Co., Chicago, Ill.
SUPER-CUTNO—Packing. Greene, Tweed & Co., New York, N. Y.
SUPER DYNAMITE—Steam hose. Mulconroy Company, Philadelphia, Pa.
SUPER-DREADNAUGHT—Hose and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
SUPER-DREDNAUT—Goggles and lenses. The Safety Equipment Service Co., Cleveland, Ohio.
SUPER DUTY—Files, rasps and butcher steels. The Cleveland File Co., Cleveland, Ohio.
SUPER S—Solid round leather belting. F. Raniville Co., Grand Rapids, Mich.
SUPER EXCELO—Conveyor belting. The Republic Rubber Co., Youngstown, Ohio.
SUPER FUME PROOF WHITE—Inside paint. A. C. Horn Co., Long Island City, N. Y.
SUPER-GIANT—Blower and suction device. Ideal Commutator Dresser Co., Sycamore, Ill.
SUPER HOLE SHOOTER—Electric drills. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SUPER-KOOL—Automatic screw washing oil. D. A. Stuart Oil Co., Chicago, Ill.
SUPER-MARCO—Conveyor belting. The Mechanical Rubber Co., Passaic, N. J.
SUPER-MASTER—Belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
SUPER-MICROMETER—Measuring machines. Pratt & Whitney Co., Hartford, Conn.
SUPER-NIAGARA—Emery. Keystone Emery Mills, Philadelphia, Pa.
SUPER PANTHER—High speed steel. Ludlum Steel Co., Watervliet, N. Y.
SUPER PLASTIC—Plastic fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
SUPER PORTO—Portable electric saws. Portable Power Tool Corp., Warsaw, Ind.
SUPER POWER—Magnetic chucks. Taft-Peirce Mfg. Co., Woonsocket, R. I.
SUPER POWER—Short center belt drive. Baldwin Belting & Leather Co., Inc., New York, N. Y.
SUPER-SAW—Electric handsaw. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SUPER SCREW-SHOOTER—Electric screw driver. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SUPER SERVICE—Belting, hose and packing. Hamilton Rubber Mfg. Co., Trenton, N. J.
SUPER SERVICE—Elevator belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
SUPER SERVICE—Spray hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SUPER SILVERTOP—Inverted bucket steam trap. The V. D. Anderson Co., Cleveland, Ohio.
SUPER-SIX—Battery tools. S. R. M. Orum, Inc., Philadelphia, Pa.
SUPER-STERLING—Hack saw blades. Diamond Saw & Stamping Works, Buffalo, N. Y.
SUPER-SUPERIOR—Round belting. Western Rawhide & Belting Co., Milwaukee, Wis.
SUPER-TYPE-AUTOVENT—Steam unit heaters. Autovent Fan & Blower Co., Chicago, Ill.
SUPER-WAY—Mill type doors. Richards-Wilcox Mfg. Co., Aurora, Ill.
SUPER WOODWORKER—Portable saw rigs. Jones Superior Machine Co., Chicago, Ill.
SUPERBA—Oils, greases, packing, etc. Curry Brothers Oil Co., Boston, Mass.
SUPERBELT—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
SUPERCLAMP—Steel "C" clamp. The Cincinnati Tool Co., Cincinnati, Ohio.
SUPERECTOR—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPEREX—Insulation. Johns-Manville, New York, N. Y.
SUPERFLAKE—Graphite, greases, paints, penetrating oil, pipe joint compound, belt and wire rope dressing, rust preventive and foundry facings. Superior Flake Graphite Co., Chicago, Ill.
SUPERJUSTABLE—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERMAL—Malleable iron chains, etc. The Jeffrey Mfg. Co., Columbus, Ohio.
SUPERPACKING—Leather packings. Philadelphia Belting Co., Philadelphia, Pa.
SUPERIOR—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
SUPERIOR—Bronze bushing stock. Atlas Brass Foundry, Los Angeles, Calif.
SUPERIOR—Car movers and rail benders. Tallman Manufacturing Co., Shelbyville, Ill.
SUPERIOR—Horse rasps. Nicholson File Co., Providence, R. I.
SUPERIOR—Leather belting, pins, gear blanks, etc. Western Rawhide & Belting Co., Milwaukee, Wis.
SUPERIOR—Machinists' vises. The Charles Parker Co., Meriden, Conn.
SUPERIOR—Manila rope. American Manufacturing Co., Brooklyn, N. Y.
SUPERIOR—Oil filters. Handlan-Buck Mfg. Co., St. Louis, Mo.
SUPERIOR—Oil and gas line tubing. Penn Brass & Copper Co., Erie, Pa.
SUPERIOR—Spring bottom oilers. P. Wall Mfg. Supply Co., Pittsburgh, Pa.
SUPERIOR—Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
SUPERIOR—Woodworking machinery. Jones Superior Machine Co., Chicago, Ill.
SUPERIOR—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERIOR MILLED TOOTH—Files. Nicholson File Co., Providence, R. I.
SUPERIOR PLATINUM POINT—Coil files. Nicholson File Co., Providence, R. I.
SUPERMAL—Special treated malleable iron for chains and buckets. The Jeffrey Manufacturing Co., Columbus, Ohio.
SUPERRENCH—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERSOCKET—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERSTEEL—Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago, Ill.
SUPERTAN—Leather belting. Baldwin Belting & Leather Co., Inc., New York.
SUPERTENSIL—Cap screws. The Lamson & Sessions Co., Cleveland, Ohio.
SUPREME—Hose. Home Rubber Co., Trenton, N. J.
SUPREME—Oil lanterns. Embury Mfg. Co., Warsaw, N. Y.
SUPREME—Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
SUPREME—Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
SURE-CLEAN—Window cleaners. The Osborn Manufacturing Co., Cleveland, O.
SURE-GRIP—Collets. Sutton Tool Co., Detroit, Mich.
SURE GRIP—Door hangers, etc. The F. E. Myers & Bro. Co., Ashland, Ohio.
SURE-GRIP—Hose clamps. J. R. Clancy, Inc., Syracuse, N. Y.
SUREFEED—Lubricators. American Injector Co., Detroit, Mich.
SUREGRIP—Nail pullers. The Bridgeport Hdwe. Mfg. Co., Bridgeport, Conn.
SUREGRIPS—Hooks for round belting. Armstrong-Bray & Co., Chicago, Ill.
SURELOCK—Grease cups. American Injector Co., Detroit, Mich.
SUREVENT—Equalizing valves for venting radiators. Gorton Heating Corp., Cranford, N. J.
SURPRISE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
SURPRISE—Oil burners. Efficiency Engineering Co., Boston, Mass.
SUTORBILT—Blowers, pumps, V-belt drives, etc. Sutorbilt Corp., Los Angeles, Calif.
SUTTON—Flat leather belting. Johnson Belting Co., New York, N. Y.
SVEA—Camp stoves and torches. Sandvik Saw & Tool Corp., Minneapolis, Minn.
SWACO—Car movers and wrenches. (Car dumping.) Safety Wrench & Appliance Co., Worcester, Mass.
SWAN—Automatic valves. Klipfel Manufacturing Co., Chicago, Ill.
SWIVEL HEAD—Bolt clippers. H. K. Porter, Inc., Everett, Mass.
SYKES—Herringbone gears and reducers. Link-Belt Co., Chicago, Ill.
SYKES—Hose holder. W. D. Allen Mfg. Co., Chicago, Ill.
SYNCROGEAR—Motors. U. S. Electrical Motors, Inc., Los Angeles, Calif.
SYRACUSE METALS—Metals and solder. United American Metals Corp., Brooklyn, N. Y.

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T & S—Chain. The Smith & Egge Div. of The Turner & Seymour Mfg. Co., Torrington, Conn.
TABCO—Blowers, air compressors, etc. Allen & Billmyre Co., Inc., New York.
TACOMA—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TAG—Indicating, recording and controlling instruments. C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
TALISMANIC—Belt dressings. John C. Chambers Co., Chicago, Ill.
TAMARACK—Glass oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TAMPAX—Fibre sheet packing. Advance Packing & Supply Co., Chicago, Ill.
TAMPIN—Machine screw anchors. Star Expansion Bolt Co., New York, N. Y.
TAN-O-TAN BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
TANCHROME—Leather packing. Michigan Leather Packing Co., Detroit, Mich.
TANDEM—Pressure oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TANGLE PROOF—Spring lock washers. Hobbs Manufacturing Co., Worcester, Mass.
TANK TYPE—Belt conveyor trippers. Link-Belt Co., Chicago, Ill.
TANNATE—Leather belting, belt preserver, packing, etc. J. E. Rhoads & Sons, Philadelphia, Pa.
TANSEAL—Vegetable-fibre sheet packing. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
TANTAR—Packing. Advance Packing & Supply Co., Chicago, Ill.
TAPERED SOCKET—Shovels. The Wood Shovel and Tool Co., Piqua, Ohio.
TAPERLOCK—Thread and cylinder gauges. Pratt & Whitney Co., Hartford, Conn.
TARK—Sewage screen. Link-Belt Co., Chicago, Ill.
TARPON—Leather belting. Page Belting Co., Concord, N. H.
TARRANT—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TASGON—Penetrating oil and rust solvent. The Wilbur & Williams Co., Boston, Mass.
TATE—Flexible boiler staybolts. Flannery Bolt Co., Pittsburgh, Pa.
TAYLORMADE—Chain. S. G. Taylor Chain Co., Hammond, Ind.
TEE—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
TEE PLEX—Wrenches. Stevens Walden, Inc., Worcester, Mass.
TEEFERRO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
TEL-TEMP—Industrial thermometer. Ideal Commutator Dresser Co., Sycamore, Ill.
TEMCROSS—Steel sheets. Ingersoll Steel & Disc Co., Newcastle, Ind.
TEMPLE—Glass oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TENAX—Compressed asbestos sheet packing. Advance Packing & Supply Co., Chicago, Ill.
TENAX—Expansion shields. Diamond Expansion Bolt Co., Inc., Garwood, N. J.
TENSILE BELT—Belting cloth. Newark Wire Cloth Co., Newark, N. J.
TENSILLITE—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco.
TENSO—Coil chain specialties. American Chain Co., Inc., Bridgeport, Conn.
TENTACULAR—Leather belting. Alexander Brothers, Inc., Philadelphia, Pa.
TEON—Belting. D. P. Brown & Co., Philadelphia, Pa.
TERMODYNE—Babbitt metal. Federated Metals Corp., New York, N. Y.
TERRIER—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TEST—R. C. Fire hose. New York Belting & Packing Co., Passaic, N. J.
TEST SPECIAL—Transmission belting. New York Belting & Packing Co., Passaic, N. J.
TETON—Alloy tool steel. Ludlum Steel Co., Watervliet, N. Y.
TEX DRIVE—V belt grinders and buffers. The Hisey-Wolf Machine Co., Cincinnati.
TEX-TIL TYPE—Casing for silent chain drives. Link-Belt Co., Chicago, Ill.
TEXROPE—Multiple V-belt drives. Allis-Chalmers Manufacturing Co., West Allis, Wis.
TEXSTEEL—Pressed steel Texrope (V-belt) drive sheaves. Allis-Chalmers Manufacturing Co., West Allis, Wis.
TEXTOLITE—Loom pickers. E. H. Jacobs Manufacturing Co., Danielson, Conn.
TEXTOLITE—Wheels. The Service Caster & Truck Co., Albion, Mich.
THE GEAR WITH A BACKBONE—Herringbone gears. Farrel-Birmingham Co., Inc., Buffalo, N. Y.
THEMAC—Portable electric precision grinders and flexible shaft tools. The McGonegal Mfg. Co., East Rutherford, N. J.
THERMAL—Traps. Nason Manufacturing Co., New York, N. Y.

THERMO—Canvas stitched conveyor belt, etc. Gandy Belting Co., Grand Rapids, Mich.
THERMO — Industrial glass. Macbeth-Evans Glass Co., Charleroi, Pa.
THERMO—Leather belting. Couse & Bolten, Inc., Newark, N. J.
THERMO—Packings and gaskets. Johns-Manville, New York, N. Y.
THERMO-GANDY — Belting. The Gandy Belting Co., Grand Rapids, Mich.
THERMO GRIP—Electric heating pliers. Ideal Commutator Dresser Co., Sycamore, Ill.
THERMOFLEX — Steam specialties, etc. Grinnell Co., Inc., Providence, R. I.
THERMO TEMPER — Woodworking knives. Stalter Edge Tool Co., Grand Rapids, Mich.
THERMOKOTE — Heat resistant paint. Vita-Var Corp., Newark, N. J.
THERMOLIER—Unit heaters. Grinnell Co., Inc., Providence, R. I.
THERMOLITE—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
THERMOPLAX—Moulded insulation. Cutler-Hammer, Inc., Milwaukee, Wis.
THISTLE BRAND—Taps, dies and screw plates. Winter Brothers Co., Inc., Wrentham, Mass.
THOMAS—Calorimeters and meters. Cutler-Hammer, Inc., Milwaukee, Wis.
THOMPSON—Damper regulators and planimeters. William H. Murray, Brooklyn, N. Y.
THOR—Belting. The Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
THOR—Electric and pneumatic tools and air compressors. Independent Pneumatic Tool Co., Chicago, Ill.
THOR COCHISE—Rock drills and stopers. Independent Pneumatic Tool Co., Chicago, Ill.
THOROBRED—Cord garden hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
THRED-KUT—Lubricating oil. D. A. Stuart Oil Co., Chicago, Ill.
THREDOLETS — Welding pipe fittings. Bonney Forge & Tool Works, Allentown, Pa.
THREE IN ONE—Force pumps. Charles Perkes Co., Philadelphia, Pa.
THREE-IN-ONE—Vapor-vacuum fittings. Messmer Brass Co., St. Louis, Mo.
THREE-M—Sandpapers. Minnesota Mining & Mfg. Co., St. Paul, Minn.
THREE-M-ITE—Abrasive cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
THREE PART RIBBED—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
3-IN-ONE—Oil. The A. S. Boyle Co., Cleveland, Ohio.
NO. 371—Belt preserver. Ensign Products Co., Cleveland, Ohio.
3-W STERIL-CLEAN — Wiping cloths. Wisconsin Waste and Wiper Co., Milwaukee, Wis.
THRESHER—Transmission belting. New York Belting & Packing Co., Passaic, N. J.
THURCO — Milling cutters, saws, etc. Thurston Mfg. Co., Providence, R. I.
TIGER—Belting and hose. Home Rubber Co., Trenton, N. J.
TIGER—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
TIGER—Hose and cloth insertion sheet packing. Boston Woven Hose & Rubber Co., Cambridge, Mass.
TIGER—Pump leathers Goulds Pumps, Inc., Seneca Falls, N. Y.
TIGER—Sash cord. Samson Cordage Works, Boston, Mass.
TIGER—Wire rope clips and sockets. American Steel & Wire Co., Chicago, Ill.
TIGER TAM—Leather belting. Baltimore Belting Co., Baltimore, Md.
TIGHTON—Unions. Standard Union Co., Inc., Lockport, N. Y.
TILTON—Canvas and cotton belting, etc. Arthur S. Brown Mfg. Co., Tilton, N. H.
TIMBERTEX — Asbestos shingles. The Ruberoid Co., New York, N. Y.
TINOL—Flux powder. American Solder & Flux Co., Philadelphia, Pa.
TIREX—Wires and cables. Simplex Wire & Cable Co., Boston, Mass.
TIS-WITE—Mill white paint. Otley Paint Mfg. Co., Chicago, Ill.
TITAN—Abrasive discs. Charles H. Besly and Co., Chicago, Ill.
TITAN—Belting hose, packing, mats, cement, etc., Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
TITAN—Throttle valves. The Wm. Powell Co. Cincinnati, Ohio.
TITANLIGHT — Goggles. Chicago Eye Shield Co., Chicago, Ill.
TITE PLEX—All metal hose and tubing Titeflex Metal Hose Co., Newark, N. J.
TITEFIT—Goggles. Chicago Eye Shield Co., Chicago, Ill.
TITE-PAC—Sheet packing. Jenkins Bros., New York, N. Y.
TOBIN BRONZE—Sheets, rods and tubes. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
TOLEDO—Pipe threaders, pipe threading and cutting machines, stocks and dies. The Toledo Pipe Threading Machine Co., Toledo, Ohio.
TOLEDO—Torches, truck flares and folding steel horses. The Toledo Pressed Steel Co., Toledo, Ohio.
TOM THUMB—Portable pipe machine. The Oster Mfg. Co., Cleveland, Ohio.
TONCAN IRON—Sheet and pipe. Republic Steel Corp., Cleveland, Ohio.
TONKA—Water hose. The Republic Rubber Co., Youngstown, Ohio.
TONWATE—Casters and wheels. Divine Brothers Co., Utica, N. Y.
TOOLWELD — Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
TOOL COOL—Soluble oil. The Franklin Oil & Gas Co., Bedford, Ohio.
TOOL-MAKERS—C-Clamps. J. H. Williams & Co., New York, N. Y.
TOPAZ—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TORIT—Torches, etc. Torit Manufacturing Co., St. Paul, Minn.
TORNADO—Boiler tube cleaner. Paul B. Huyette Co., Inc., Philadelphia, Pa.
TORNADO — Vacuum cleaners, electric blowers and electric insecticide and paint sprayers. Breuer Electric Manufacturing Co., Chicago, Ill.
TORNEDO — Waterproof leather belting and belt cement. O'Meara Belting Co., Omaha, Neb.
TORPEDO—Packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
TORRINGTON—Forced feed lubricators, blower and centrifugal wheels and condenser ferrules The Torrington Manufacturing Co., Torrington, Conn.
TORSIMETER—Adjustable clutch screwdriver and portable electric screwdriver. The Black & Decker Mfg. Co., Towson, Md.
TORSIMETER—Portable electric screwdriver. The Van Dorn Electric Tool Co., Towson, Md.
TOTRUST—Rust preventive paint. The Wilbur William Co., Boston, Mass.
TOUGHIDE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
TOWER—Pneumatic tool hose. The Republic Rubber Co., Youngstown, Ohio.
TRACYFIER—Steam purifier. Blaw-Knox Co., Pittsburgh, Pa.
TRAFFIC MASTER — Apparatus sirens. Federal Electric Co., Chicago, Ill.
TRAFFIC MODEL—Fire hydrants. Vogt Brothers Mfg. Co., Louisville, Ky.
TRAHERN—Rotary pumps. Geo. H. Roper Corp., Rockford, Ill.
TRANCO—Lift trucks. Chapman Bearing & Engineering Corp., Buffalo, N. Y.
TRANSIT—Pumps, tools and compressors. National Transit Pump & Machine Co., Oil City, Pa.
TRANSITE—Asbestos roofing and siding. Johns-Manville, New York.
TREASURE CHEST—Socket wrench set. Blackhawk Mfg. Co., Milwaukee, Wis.
TREMONT—Snap lever oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TRENTON-BLEICHERT—Aerial tramways. American Steel & Wire Co., Chicago, Ill.
TRI B. BRAND—Industrial chemicals. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
TRI-CON—Springtype and radiator filler faucets, water, air and hose nozzles, air guns, and self-cleaning mop. Molded Specialties Co., Cleveland, Ohio.
TRI-M-ITE—Abrasive paper or cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
TRI-PLEX — Combination lathe chucks. The Cushman Chuck Co., Hartford, Conn.
TRI-WELD—Steel loading chain. The Cleveland Chain & Mfg. Co., Cleveland, O.
TRIANGLE—Hand hammers and masonry drills. The Rawlplug Co., New York, N. Y.
TRIANGLE B. BRAND—Fluxes and compounds. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
TRIBLOC — Chain hoists. Ford Chain Block Co., Philadelphia, Pa.
TRICROME—Cutter wheels. Trimont Mfg. Co., Roxbury, Boston, Mass.
TRIDENT—Loading chain, guy clamps and drill press and vise. Newhall Chain Forge & Iron Co., New York, N. Y.
TRILOCK—Thread and cylinder gauges. Pratt & Whitney Co., Hartford, Conn.
TRIMO—Monkey wrenches, pipe cutting, vises, etc. Trimont Mfg. Co., Roxbury, Boston, Mass.
TRIMO-ALLOY — Pipe wrenches and screw drivers. Trimont Mfg. Co., Roxbury, Boston, Mass.
TRINIDAD—Asphalt. The Barber Asphalt Co., Philadelphia, Pa.
TRIPLE—Pipe bends, headers and fabricated piping. Grinnell Co., Inc., Providence, R. I.
TRIPLE-A—Protective coatings. Quigley Co., Inc., New York, N. Y.
TRIPLE DIAMOND—Transmission belting. New York Belting & Packing Co., Passaic, N. J.
TRIPLE DUTY — Drill presses. Delta Manufacturing Co., Milwaukee, Wis.
TRIPLE DUTY—Emergency valves. Foster Engineering Co., Newark, N. J.
TRIPLE STAR — Transmission belting. New York Belting & Packing Co., Passaic, N. J.
TRIPLE XXX—Fabricated piping. Grinnell Co., Inc., Providence, R. I.
TRIPLEX — Combination lathe, milling machine and drill press. B. C. Ames Co., Waltham, Mass.
TRIPLEX (THE)—Lathe chuck. The Cushman Chuck Co., Hartford, Conn.
TRIPLEX — Oil gauges. The Lunkenheimer Co., Cincinnati, Ohio.
TRIPOLINE — Metal polish. Matchless Metal Polish Co., Chicago, Ill.
TRIPPER—Conveyor belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
TRIUMPH — Eyelet pliers and eyelets. The Wm. Schollhorn Co., New Haven, Conn.
TRIUMPH — Single or double jacketed plain metal asbestos gaskets. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
TRIUMPH—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
TRIUMPH—Tampico wheels. The Osborn Manufacturing Co., Cleveland, Ohio.
TRIXAS — Insulating paint. American Asphalt Paint Co., Chicago, Ill.
TROJAN—Gauge cocks and reflex gauges. Klingerit, Inc., New York, N. Y.
TROJAN—Goggles. Chicago Eye Shield Co., Chicago, Ill.
TROJAN—Leather and rubber belting and leather cement. Degen-Fiege Belting Co., Los Angeles, Calif.
TROJAN—Manila drill cable. St. Louis Cordage Mills, St. Louis, Mo.
TROJAN—Pipe pusher. The Farnan Brass Works Co., Cleveland, Ohio.
TROJAN — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
TROPHY—Lock bar oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TROUT—Power set works for saw mills. Allis-Chalmers Manufacturing Co., West Allis, Wis.
TROY—Flint paper. Behr-Manning Co., Troy, N. Y.
TRU-GRIP—Tap holder. Procunier Safety Chuck Co., Chicago, Ill.
TRU-LAY — Wire rope. American Cable Co., Inc., Wilkes-Barre, Pa.
TRU LEDE—Commercial ground thread taps. Greenfield Tap & Die Corp., Greenfield, Mass.
TRU-LOC—Wire rope fittings. American Cable Co., Inc., Wilkes-Barre, Pa.
TRUCK FLAR — Truck flares. Anthes Force Oiler Co., Fort Madison, Iowa.
TRUE AMERICAN—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
TRUE BLUE—Semi-steel pulleys. W. A. Jones Foundry & Machine Co., Chicago.
TRUE OAK—Leather belting. Smyth-Despard Co., Utica, N. Y.
TRUE TEMPER — Shovels, scoops and spades. American Fork & Hoe Co., Cleveland, Ohio.
TRUKASTER — Casters. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.
TRUKFLAG—Truck flags. Anthes Force Oiler Co., Fort Madison, Iowa.
TRUNDLER—Trucks. The Service Caster & Truck Co., Albion, Mich.
TRUSFORM—Snap gauges. Pratt & Whitney Co., Hartford, Conn.
TRUSS—Frame carriers. Stephens-Adamson Mfg. Co., Aurora, Ill.
TRUSTY—Gasoline strainers. The Lunkenheimer Co., Cincinnati, Ohio.
TRY-ME—Ball cocks, valves, strainers, etc. Tryco Products, Inc., Westfield, Mass.
TUBOND—Lead lined pipe. National Lead Co., New York, N. Y.
TUCKS—Packings and gaskets. Johns-Manville, New York, N. Y.
TUCONE—Rock bits. Chicago Pneumatic Tool Co., New York, N. Y.
TU-GUYEYE—Combination eye bolt and thimble. Hubbard & Co., Pittsburgh, Pa.
TU-TAN—Leather belting. W. S. Nott Co., Minneapolis, Minn.
TUF—Metal valve discs. William H. Murray, Brooklyn, N. Y.
TUFF—Lenses. Harry Buegeleisen, Brooklyn, N. Y.
TUF-STUF — Aluminum bronze rods. Mueller Brass Co., Port Huron, Mich.
TUF-TAN—Lace leather. Graton & Knight Co., Worcester, Mass.
TUPSTUF—Tool handles. O. P. Link Handle Co., Salem, Ind.

UMI

TUJUR—Horizontal condensation pumps. Weil Pump Co., Chicago, Ill.
TUM-BLAST—Tumbling mills. American Foundry Equipment Co., Mishawaka, Ind.
TUNGSTEN POINT (NICHOLSON)—Coil files. Nicholson File Co., Providence, R. I.
TUNGSTEN TEMPER — Woodworking knives. Stalter Edge Tool Co., Grand Rapids, Mich.
TURBINE—Lawn sprinkler.. W. D. Allen Mfg. Co., Chicago, Ill.
TURNERLITE — Gasoline lanterns. The Turner Brass Works, Sycamore, Ill.
TURRET—General service pumps. Yeoman Brothers Co., Chicago, Ill.
TURXO—Backing. New York Belting & Packing Co., Passaic, N. J.
TUTALITE — Casein paint. The Wilbur William Co., Boston, Mass.
TUTALUME—Aluminum paint. The Wilbur William Co., Boston, Mass.
TUWAY — Strainers. Wright-Austin Co., Detroit, Mich.
TUXEDO—Bronze unions. Franklin Williams, Inc., Orange, N. J.
NO. 12 X 1855—Bolt clippers. H. K. Porter, Inc., Everett, Mass.
TWENTIETH CENTURY—Balancing tools. Sundstrand Machine Tool Co., Rockford, Ill.
TWENTIETH CENTURY — Boiler tube and flue cleaners. William H. Murray, Brooklyn, N. Y.
20TH CENTURY — Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago, Ill.
20TH CENTURY—Steel belt lacing and belt studs. Manufacturers' Belt Hook Co., Chicago, Ill.
20TH CENTURY — Water coolers, etc. Cordley & Hayes, New York, N. Y.
TWINLINE and **TWINROW** — Tapered roller bearings. Wm. E. Pratt Mfg. Co., Joliet, Ill.
"TWO-BITS" ECONOMY — Cotter pins, lock washers, etc. Heiz & Heiz, Inc., Brooklyn, N. Y.
2 IN 1—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
2-IN-1—Tap and reamer wrenches. Bergman Tool Mfg. Co., Buffalo, N. Y.
TWO IN ONE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
TWO PART SPEED — Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
2-XL—Hose. The Mechanical Rubber Co., Passaic, N. J.
TWO WAY—Folding wood rules. The Lufkin Rule Co., Saginaw, Mich.
TWO WAY—Machine pumps. The Ross Mfg. Co., Cleveland, Ohio.
TWYNCONE — Friction clutches. Link-Belt Co., Chicago, Ill.
TYFON—Signals and whistles for air and steam. Leslie Co., Lyndhurst, N. J.
TYPE 10—Air hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
TYPE 20—Oxy-acetylene hose. The Cincinnati Rubber Mfg. Co., Cincinnati, O.
TYPE 30—Air hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
TYPE 3030—Conveyor belting. The Cincinnati Rubber Mfg. Co., Cincinnati, O.
TYTE-UNYTE—Pipe joint cement. J. C. Whitlam Mfg. Co., Wadsworth, Ohio.

U

U. D. MACHINE — Combination punch shear and bar cutter. Buffalo Forge Co., Buffalo, N. Y.
U. G.—Automatic belt contactors. T. B. Wood's Sons Co., Chambersburg, Pa.
UJV—Pumping units. Nelson Brothers Co., Saginaw, Mich.
U. S.—Gate valves. The Wm. Powell Co., Cincinnati, Ohio.
U. S.—Injectors. American Injector Co., Detroit, Mich.
U. S.—Portable electric drills, grinders, buffers, polishers, etc. United States Electrical Tool Co., Cincinnati, Ohio.
U. S. — Trace chains. The McKay Co., Pittsburgh, Pa.
U. S. AUTOMATIC — Extension ladder. Michigan Ladder Co., Ypsilanti, Mich.
U. S. MULTI-MILLER — Two purpose milling machine. U. S. Tool Co., Inc., Ampere, N. J.
U. S. MULTI-SLIDE—Four slide cutting and forming machine. U. S. Tool Co., Inc., Ampere, N. J.
U. S. SLIDE FEEDS—Automatic punch press feeds. U. S. Tool Co., Inc., Ampere, N. J.
U. S. TYPE—Metallic packings. Northern Metallic Packing Co., St. Paul, Minn.
USG—Carbon Products. The United States Graphite Co., Saginaw, Mich.
USS AMERICAN—Fence (woven wire). Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
USS TIGER BRAND—Wire rope. Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
USS UNION LOCK—Poultry fence. Columbia Steel Company, United States Steel Corp. Subsidiary, San Francisco, Calif.
U-W — Self-locking hoists and tackle blocks, brattice cloth, and wire rope fittings. The Upson-Walton Co., Cleveland, Ohio.
UINTAH—Heat resisting paint. American Asphalt Paint Co., Chicago, Ill.
ULTRA CUT — Screw stock. Bliss & Laughlin, Inc., Harvey, Ill.
UNA—Electric welding apparatus, etc. Una Welding, Inc., Cleveland, Ohio.
UNBRAKO — Screws. Standard Pressed Steel Co., Jenkintown, Pa.
UNBREAKABLE—Hammers and hatchets. Estwing Mfg. Co., Rockford, Ill.
UNBREAKABLE—Nail pullers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
UNDERWRITERS — Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
UNIBLADE—Blowers. Autovent Fan & Blower Co., Chicago, Ill.
UNI-FILL—Wire scratch brushes. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
UNI-FULL DRIVE—Short-center flat belt drives. Rockwood Mfg. Co., Indianapolis, Ind.
UNICLOSED — Motors. U. S. Electrical Motors, Inc., Los Angeles, Cal.
UNICOAT GLOSS—Mill white paint. H. Rinald Co., Philadelphia, Pa.
UNICON—Portable belt conveyors. Stephens-Adamson Mfg. Co., Aurora, Ill.
UNION—Winches, chain hoists, jacks, etc. J. H. Channon Corp., Chicago.
UNION—Chucks, face plate jaws, chain hoists, trolleys, etc. Union Mfg. Co., New Britain, Conn.
UNION—Cold pipe covering. Union Fibre Sales Co., Winona, Minn.
UNION—Cold finished steel. Peter A. Frasse & Co., Inc., New York, N. Y.
UNION BEARING METAL—Babbit Metal. Glacier Metal Co., Richmond, Va.
UNION CARBIDE—Calcium carbide. The Linde Air Products Co., Unit of Union Carbide & Carbon Corp., New York.
UNION COMPOSITE DISC—Globe, angle and check valves. The Wm. Powell Co., Cincinnati, Ohio.
UNION SPECIAL — Anti-friction metal. Federated Metals Corp., New York, N. Y.
UNIONFORMED—Wire rope. Union Wire Rope Corp., Kansas City, Mo.
UNIQUE—Flour and feed mill machinery, etc. Robinson Mfg. Co., Muncy, Pa.
UNIROLL—Belt conveyor idlers. Link-Belt Co., Chicago, Ill.
UNITED—Valves and fittings. National Lead Co., New York, N. Y.
UNITEX—Fire brick. Quigley Co., New York, N. Y.
UNITO—Drill rods. Kidd Drawn Steel Co., Aliquippa, Pa.
UNIVERSAL—Babbitt metal. Merchant & Evans Co., Philadelphia, Pa.
UNIVERSAL—Cord spools. McGill Mfg. Co., Valparaiso, Ind.
UNIVERSAL—Hack saw blades. Millers Falls Co., Greenfield, Mass.
UNIVERSAL — Hydraulic jacks and pumps. Richard Dudgeon, Inc., New York, N. Y.
UNIVERSAL—Industrial and automobile turntables. The Canton Foundry & Machine Co., Cleveland, Ohio.
UNIVERSAL—Measuring tapes, try and mitre squares. The Lufkin Rule Co., Saginaw, Mich.
UNIVERSAL—Oil cups. American Stamping Co., Battle Creek, Mich.
UNIVERSAL—Oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
UNIVERSAL — Packings and gaskets. Johns-Manville, New York.
UNIVERSAL—Steel V pulleys. Maurey Mfg. Co., Chicago, Ill.
UNIVERSAL—Union steam joints. Miles A. Connor, Lockport, N. Y.
UNIVERSAL—Vises. Emmert Mfg. Co., Waynesboro, Pa.
UNIVERSAL—Water softeners. Universal Water Softener, Inc., Green Bay, Wis.
UNIVERSAL BELT OIL—Belt dressing. Burrell Belting Co., Chicago, Ill.
UNIVERSAL GIANT — Friction clutches, automatic belt contactors, hangers and tool grinders. T. B. Wood's Sons Co., Chambersburg, Pa.
UNIVERSAL IRON WORKER—Combination punch, shear and bar cutter. Buffalo Forge Co., Buffalo, N. Y.
UNIVERSAL TOOLS—Hand chain hoists. Coffing Hoist Co., Danville, Ill.
UNIVERSE—House force pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
UNIVERSE — Oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
UNSHAKO—Self-locking nuts. Standard Pressed Steel Co., Jenkintown, Pa.
UNXLD — Damper quadrants. Parker-Kalon Corp., New York, N. Y.
UPSON—Bolts, nuts, rivets, etc. Upson Nut Div., Republic Steel Corp., Cleveland, Ohio.
USACO — Air compressors, spray guns, hydraulic hoists, etc. United States Air Compressor Co., Cleveland, Ohio.
USACO—Asbestos packings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
USARCO — Bar solder and anti-friction metal. Federated Metals Corporation, New York, N. Y.
USE-EM-UP—Drill sleeves and sockets. Scully-Jones & Co., Tool Division, Chicago, Ill.
USETCO—Rotary files. United States Electrical Tool Co., Cincinnati, Ohio.
USHCO—Hammers and wrenches. U. S. Hame Co., Buffalo, N. Y.
USUCO—Unions. United Superior Union Co., Inc., Brooklyn, N. Y.
UTAH—Elevator belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
UTICA—Die steel. Ludlum Steel Co., Watervliet, N. Y.
UTILITY—Contractors' hoists. Ingersoll-Rand Co., New York, N. Y.
UTILITY — Counterbores, countersinks, core drills, reamers, etc. The J. C. Glenzer Co., Detroit, Mich.
UTILITY—Door mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
UTILITY—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
UTILITY—Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
UTILITY SAFETY—Platform ladder. Michigan Ladder Co., Ypsilanti, Mich.
UTILITY WAVE CUT—Files. Wave Cut File & Tool Corp., New York, N. Y.

V

V-A—Paint, metal primer and dryer. American Asphalt Paint Co., Chicago, Ill.
V-B—Balata belt. Victor Balata & Textile Belting Co., New York, N. Y.
V-G — Lights. National Carbide Sales Corp., New York, N. Y.
V & B — Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago.
V.E.D.—Variable speed drive. Link-Belt Co., Chicago, Ill.
V-FLAT—Star drills for power hammers. The Cincinnati Tool Co., Cincinnati, O.
VACUUM GRIP—Pliers, punches, chisels, and screw drivers. Forged Steel Products Co., Newport, Pa.
VALBESTINE—Valve stem packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
VALCULITE—Insulating cement. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
VALDURA—Asphalt aluminum paint and enamelized paint. American Asphalt Paint Co., Chicago, Ill.
VALLEIRON — Transmission equipment. Sprout, Waldron & Co., Inc., Muncy, Pa.
VALLEY FORGE—Packings. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
VALUE—Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago.
VAN DORN—Portable electric tools. The Van Dorn Electric Tool Co., Towson, Md.
VANO—Industrial and mine ventilating fans. Coppus Engineering Corp., Worcester, Mass.
VAPORITE—Asbestos sheet packing. A. W. Chesterton Co., Boston, Mass.
VARIDRIVE — Motors. U. S. Electrical Motors, Los Angeles, Calif.
VARI-PITCH — Variable speed texrope drive sheave. Allis-Chalmers Manufacturing Co., West Allis, Wis.
VARI-SPEED—Flexible shaft tool. The Dumore Co., Racine, Wis.
VEELOS—Balata belting and balata pump valves. Manheim Mfg. & Belting Co., Manheim, Pa.
VEELOS V—V belting. Manheim Mfg. & Belting Co., Manheim, Pa.
VELO—Lubricants. Keystone Lubricating Co., Philadelphia, Pa.
VELOX—Lubricants. Keystone Lubricating Co., Philadelphia, Pa.
VELVET—Hose. Electric Hose & Rubber Co., Wilmington, Del.
VELVET—Plastic packing. Federal Metallic Packing Co., Wakefield, Mass.
VELVET—Ply goods. John Rauschenberger Co., Milwaukee, Wis.
VELVET-GRIP—Leather belting. E. P. Alexander & Son, Inc., Clifton Heights, Pa.
VELVITE—Lap powder. Behr-Manning Corp., Troy, N. Y.
VENANGO—Grease cups. Keystone Lubricating Co., Philadelphia, Pa.
VENOSTONE—Cement floor primer. The Reardon Co., St. Louis, Mo.
VENTAIR—Industrial and mine ventilating fans. Coppus Engineering Corp., Worcester, Mass.
VENTURA—Blowers. American Blower Corp., Detroit, Mich.

VERITAS—Emery wheel dressers. Sandvik Saw & Tool Corp., Minneapolis, Minn.
VERTEX—Asbestos furnace cement. J. C. Whitlam Mfg. Co., Wadsworth, Ohio.
VERY BEST—Loom pickers, straps, etc. E. H. Jacobs Manufacturing Co., Danielson, Conn.
VESUVIUS—Oil, gas or combustion burner. Davison Combustion Co., Pittsburgh, Pa.
VESUVIUS—Steam traps. Nason Manufacturing Co., New York, N. Y.
VIBRATOR—Vibrating screens. Stephens-Adamson Mfg. Co., Aurora, Ill.
VIBRO-CENTRIC — Valve seat grinder. The Van Dorn Electric Tool Co., Towson, Md.
VICTOPAC—Compressed asbestos sheet. Victor Mfg. & Gasket Co., Chicago, Ill.
VICTOR—Bolt clippers. Roberts Manufacturing Co., Everett, Mass.
VICTOR—Brine and ammonia pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
VICTOR—Cross cut saws. E. C. Atkins and Co., Indianapolis, Ind.
VICTOR—Cutting and welding equipment. Victor Equipment Co., Victor Welding Equipment Division, San Francisco, Cal.
VICTOR—Drill rods. Crucible Steel Co. of America, New York, N. Y.
VICTOR—Float and steam traps. Wright-Austin Co., Detroit, Mich.
VICTOR—Garden hose reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
VICTOR—Gaskets, packing, sealing compounds and oil seals. Victor Mfg. & Gasket Co., Chicago, Ill.
VICTOR—Lanterns. R. E. Dietz Co., New York, N. Y.
VICTOR—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
VICTOR—Machinists' vises. The Charles Parker Co., Meriden, Conn.
VICTOR—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
VICTOR—Push brooms and brushes. The Joseph Lay Co., Portland, Ind.
VICTOR—Rod packing. Johns-Manville, New York, N. Y.
VICTOR—Rubber hose. Mulconroy Co., Philadelphia, Pa.
VICTOR—Suction hose. The Mechanical Rubber Co., Passaic, N. J.
VICTOR—Tungsten and high speed hack saw blades. Victor Saw Works, Inc., Middletown, N. Y.
VICTOR—Weldless and breast chain. The McKay Co., Pittsburgh, Pa.
VICTOR—Wheelbarrows and drag scrapers. The Case Crane and Kilbourne Jacobs Co., Columbus, Ohio.
VICTOR ACME—Blowers and gas pumps. Roots-Connersville Blower Corp., Connersville, Ind.
VICTOR - KIMBALL - KROGH — Pumps, cellar drainers, etc. Victor Equipment Co., Kimball-Krogh Pump Division, Los Angeles, Calif.
VICTOR MOLY—Molybdenum hack saw blades. Victor Saw Works, Inc., Middletown, N. Y.
VICTORITE—Fibrous sheet packing. Victor Mfg. & Gasket Co., Chicago, Ill.
VICTORY—Chain hoists. Sampson Tool Co., Inc., New York, N. Y.
VIGASCO—Gasket cement. Victor Mfg. & Gasket Co., Chicago, Ill.
VIGILANT—Garden hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
VIGILANT—Water columns. The Lunkenheimer Co., Cincinnati, Ohio.
VIKE—Graphic plastic pipe compound. Keystone Lubricating Co., Philadelphia, Pa.
VIKING—Coping saws, hack saw frames and screw drivers. Forsberg Mfg. Co., Bridgeport, Conn.
VIKING—Hose and packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
VIM—Siphon pump. Goulds Pumps, Inc., Seneca Falls, N. Y.
VINCENT "AA"—High speed tool bits. The Vincent Steel Process Co., Detroit, Mich.
VINCENT-HUNTINGTON—Emery wheel dressers and cutters. Vincent Steel Process Co., Detroit, Mich.
VINDICATOR—Sheet packing. Rhopac Products Corp., Chicago, Ill.
VINTEX—Paint. The Reardon Co., St. Louis, Mo.
VISAFLAME—Safety control. The Mercoid Corp., Chicago, Ill.
VISUVIUS—Gas and oil burners. Davison Combustion Co., Pittsburgh, Pa.
VITALIFE—Wire rope lubricants and protectors. Wire Rope Lubricating Co., Trenton, N. J.
VITALUBE—Penetrating oil. The White & Bagley Co., Worcester, Mass.
VITRO-CENTRIC — Valve seat grinder. The Black & Decker Mfg. Co., Towson, Md.
VIXEN—Files. Heller Bros. Co., Newark, N. J.
VOGT—Fittings, heaters, tees, valves, etc. Henry Vogt Machine Co., Louisville, Ky.
VOLCANO—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
VOLUNTEER—Hose and packing. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
VORCOLITE—Paint. The Vortex Manufacturing Co., Cleveland, Ohio.
VOSTA—Loose pulley oiler. The Lunkenheimer Co., Cincinnati, Ohio.
VULCABESTON—Asbestos packing. Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
VULCAN—Anvils, jacks and blacksmiths' tools. Illinois Iron & Bolt Co., Carpentersville, Ill.
VULCAN—Axes, hammers, etc. American Fork & Hoe Co., Cleveland, Ohio.
VULCAN—Chain tongs, chain pipe vises, clamps, lathe and milling machine dogs, eye bolts, hooks and gauges. J. H. Williams & Co., New York, N. Y.
VULCAN—Electric band saw brazer. Oliver Machinery Co., Grand Rapids, Mich.
VULCAN—Electric soldering irons. Vulcan Electric Co., Lynn, Mass.
VULCAN—Files. Henry Disston & Sons, Inc., Tacony, Philadelphia, Pa.
VULCAN—Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
VULCAN—Hose and packing. New York Belting & Packing Co., Passaic, N. J.
VULCAN—Universal joints. The Gray & Prior Machine Co., Hartford, Conn.
VULCAN SUPERIOR—Chain pipe tongs and vises. J. H. Williams & Co., New York, N. Y.
VULCANITE KROME—Belting, packing, mechanical leathers. The Chicago Rawhide Mfg. Co., Chicago, Ill.
VULCANIZER'S SPECIAL—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
VULCOT—Waste baskets. Fibre Specialty Mfg. Co., Kennett Square, Pa.

W

W & B—Screw wrenches. J. H. Williams & Co., New York, N. Y.
W. B. W.—Valves. William E. Williams Valve Corp., New York, N. Y.
W. H. S.—Speed reducers, hangers, pulleys, etc. Winfield H. Smith, Inc., Springville, N. Y.
W. P. S.—Gaskets, packing, washers, etc. Western Packing & Supply Co., Chicago, Ill.
W. & McD.—Valves, strainers, regulators, etc. Watson & McDaniel Co., Philadelphia, Pa.
W-S—Forged steel fittings. The Watson-Stillman Co., Roselle, N. J.
W-W.—Cotter pins and automotive assortments. Western Wire Products Co., St. Louis, Mo.
WAIT—Steam turbines. Dean-Hill Pump Co., Anderson, Ind.
WAJAX D D V—Portable fire pumps. Fenwick-Reddaway Mfg. Co., Newark, N. J.
WAL-BOND — High temperature cement. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-CAST — High temperature cement. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-CHROME — High temperature cement. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-HEARTH—Plastic chrome. Wahl Refractory Products Co., Fremont, Ohio.
WAL-PRODUCTS—High temperature cement, etc. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-RAM—Plastic firebrick. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-SET—High temperature cement, etc. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-TITE — High temperature cement. The Wahl Refractory Products Co., Fremont, Ohio.
WALCO—Pipe wrench. Walworth Co., New York, N. Y.
WALDEN WORCESTER—Wrenches. Stevens Walden, Inc., Worcester, Mass.
WALKER-TURNER—Driver tools. Walker-Turner Co., Inc., Plainfield, N. J.
WALLABOUT — Hose. Hewitt Rubber Corp., Buffalo, N. Y.
WALLCORE — Fibre core construction. Wall Rope Works, Inc., New York, N. Y.
WALRUS—Glass oil pumps. The D. T. Williams Valve Co., Cincinnati, Ohio.
WALRUS — Polishing leather. Greene, Tweed & Co., New York, N. Y.
WALSEAL THREADLESS BRASS—Fittings. Walworth Co., New York, N. Y.
WALWORTH GENUINE STILLSON — Pipe wrenches. Walworth Co., New York, N. Y.
WALWORTH "200"—Valves. Walworth Co., New York, N. Y.
WALWORTH 600-2000—Unions. Walworth Co., New York, N. Y.
WAPPATT—Portable electric tools. Wappatt, Inc., Pittsburgh, Pa.
WARDEN—Oil filters. The Burt Manufacturing Co., Akron, Ohio.
WARRIOR—Independent sight feeds. The D. T. Williams Valve Co., Cincinnati, O.
WARWICK—Dredge chain, etc. Newhall Chain Forge & Iron Co., New York, N. Y.
WASHZUM—Oil soap. The White & Bagley Co., Worcester, Mass.
WASTE METER—Carbon dioxide and temperature recorders. Uehling Instrument Co., Paterson, N. J.
WATCH DOG—Water meters. Worthington-Gamon Meter Co., Harrison, N. J.
WATER OAK—Waterproof leather belting. Holyoke Belting Co., Holyoke, Mass.
WATERIDE BRAND—Waterproof leather belting. F. Raniville Co., Grand Rapids, Mich.
WATERSHED—Belting. J. E. Rhoads & Sons, Philadelphia, Pa.
WATERSNAKE — Hose. Home Rubber Co., Trenton, N. J.
WATROUS—Plumbing valves, liquid soap dispensers, etc. Imperial Brass Manufacturing Co., Chicago, Ill.
WATSON (RUBEROID-WATSON)—Pipe and boiling covering, cement, hair felt and asbestos paper. The Ruberoid Co., New York, N. Y.
WAVERLESS FLAME—Oxygen welding and cutting regulators. K-G Welding & Cutting Co., Inc., New York, N. Y.
WAXTIC—Bar belt dressing for leather and rubber belts. Norton Belting Co., Wellesley Hills, Mass.
WAYAHEAD—Deep well working heads. Rumsey Pump Corp., Seneca Falls, N. Y.
WAYNE—Leather belting. E. P. Alexander & Son, Inc., Clifton Heights, Pa.
WAYNE—Safety ladders. The Bauer Mfg. Co., Wooster, Ohio.
WE-FU-GO—Water filters and softeners. Wm. B. Scaife & Sons Co., Oakmont, Pa.
WEAR EVER—Drill and tap chucks. Scully-Jones & Co., Chicago, Ill.
WEAR WELL—Tire chains. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
WEARPRUF—Hand leathers. Gross Rubber Co., Sharon, Pa.
WEARSO—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
WEARTEX—Solid interwoven belt. Victor Balata & Textile Belting Co., New York, N. Y.
WEARWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
WEB-FACE BAKELITE—Abrasive discs. Charles H. Besly and Co., Chicago, Ill.
WEDGBELT—V-belt drives and sheaves. The American Pulley Co., Philadelphia, Pa.
WEDGELOCK—Steel shelving. The Berger Mfg. Co., Canton, Ohio.
WEED—Tire chains. The American Chain Co., Inc., Bridgeport, Conn.
WELD-A-CAST—Fluxes. Cortland Welding Compound Co., Cortland, N. Y.
WELD BILT—Lift truck platforms, portable electric elevators or stackers, etc. West Bend Equipment Corp., West Bend, Wis.
WELDA INDUSTRIELLE—Lenses. Harry Buegeleisen, Brooklyn, N. Y.
WELDOLETS — Welding pipe fittings. Bonney Forge & Tool Works, Allentown, Pa.
WESTAN—Round belting. Western Rawhide & Belting Co., Milwaukee, Wis.
WESTCO—Pumps. Micro-Westco, Inc., Bettendorf, Iowa.
WESTCOTT — Lathe and drill chucks. Westcott Chuck Co., Oneida, N. Y.
WESTCOTT—Wrenches. Keystone Mfg. Co., Buffalo, N. Y.
WESTERN—Fire hose. Pioneer Rubber Mills, San Francisco, Calif.
WESTERN—Grinders and polishing machines. Cutter Machine Co., St. Louis.
WESTERN—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
WESTITE — Metallic packing. Western Packing & Supply Co., Chicago, Ill.
WESTON — Differential hoists. David Round & Son, Cleveland, Ohio.
WETORDRY—Sandpaper. Minnesota Mining & Mfg. Co., St. Paul, Minn.
WETSTONE—Leather belting. W. S. Nott Co., Minneapolis, Minn.
WHALE—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
WHALE BRAND—Hack saw blades. The Forsberg Mfg. Co., Bridgeport, Conn.
WHALEBONE—Belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WHEELABRATOR — Sand blasting machines. American Foundry Equipment Co., Mishawaka, Ind.
WHIPCORD—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WHIPPET—Flat leather belting. Johnson Belting Co., New York, N. Y.
WHIRLPOOL—Leather belting. Charles Bond Co., Philadelphia, Pa.

UMI

WHIRLWIND—Compressed air purifier. Wright-Austin Co., Detroit, Mich.
WHIRLWIND—Cylinder grinders. Keystone Mfg. Co., Buffalo, N. Y.
WHIRLWIND—Heavy duty tool grinders. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
WHITE—Glass body oil cups. Consolidated Brass Co., Detroit, Mich.
WHITE CROSS—Belting, hose and packing. Home Rubber Co., Trenton, N. J.
WHITE DIAMOND—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
WHITE OAK—Leather belting. Chas. A. Schieren Co., New York, N. Y.
WHITE JACKET—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WHITE STAR — Globe, angle, gate and check valves. The Wm. Powell Co., Cincinnati, Ohio.
WHITE STRIP—Leather belting. Chicago Belting Co., Chicago, Ill.
WHITENRED — Wrought conduit pipe. Central Tube Co., Pittsburgh, Pa.
WHITLOCK BATAVIA—Bolt rope, twine and lath yarn. Whitlock Cordage Co., New York, N. Y.
WHITLOCK MANILA — Transmission ropes and drilling cable. Whitlock Cordage Co., New York, N. Y.
WHITLOCK WATERFLEX—Manila rope. Whitlock Cordage Co., New York, N. Y.
WHITNEY — Chains, chain drives, etc. The Whitney Chain & Mfg. Co., Hartford, Conn.
WHIZ—Blower and suction device. Ideal Commutator Dresser Co., Sycamore, Ill.
WHITNEY LEVER PUNCHES — Hand punches. W. A. Whitney Mfg. Co., Rockford, Ill.
WICKWIRE SPENCER—Wire rope. Wickwire Spencer Steel Co., New York, N. Y.
WICO — Ash, garbage and refuse cans. The Witt Cornice Co., Cincinnati, Ohio.
WIL-LITE—Mill white. The Wills Products Co., New York, N. Y.
WIL-X—Fire extinguisher liquid. Wil-X-Mfg. Corp., Brooklyn, N. Y.
WILBUR — Fire extinguishers. Wil-X-Mfg. Corp., Brooklyn, N. Y.
WILCO—Pipe and bolt threading machines. The Oster Manufacturing Co., Cleveland, Ohio.
WILFORD—Flax cloth. The Upson-Walton Co., Cleveland, Ohio.
WILL-CALK-IT—Calking material. The Willis Products Co., New York, N. Y.
WILL-GRAY-IT—Putty. The Wills Products Co., New York, N. Y.
WILLIAMS—Pole mounts. Malleable Iron Fittings Co., Branford, Conn.
WILLIE WILLIAMS — Portable pipe threading machines. The Oster Manufacturing Co., Cleveland, Ohio.
WILLSEMENT — Pipe joint compounds. The Wills Products Co., New York, N. Y.
WILSON — Arc welding machines and electrodes. Air Reduction Sales Co., New York, N. Y.
WILSON—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.
WILSON—Gate valves. Everlasting Valve Co., Jersey City, N. J.
WILSON — Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
WILSON—Welding wire and accessories. Peter A. Frasse & Co., Inc., New York.
WIN—Speed reducers, hangers, pulleys, etc. Winfield H. Smith, Inc., Springville, N. Y.
WINDY—Fans and blowers. Sutorbilt Corp., Los Angeles, Calif.
WINGFOOT—Belting and hose. The Goodyear Tire & Rubber Co., Inc., Akron, O.
WINGO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
WING TYPE—Pulleys. Sprout, Waldron & Co., Inc., Muncy, Pa.
WIRECO—Wire rope. Wire Rope Corp. of America, New Haven, Conn.
WIREGRIP — Belt hooks. Armstrong-Bray & Co., Chicago, Ill.
WISSCO—Wire. Wickwire Spencer Steel Co., New York, N. Y.
WITT—Ash, garbage and refuse cans, oily waste cans, roller cans, hoisting cans, underground garbage receivers, etc. The Witt Cornice Co., Cincinnati, Ohio.
WIXOM—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WIZARD—Bar belt dressing. Richmond Belt Dressing Mfg. Co., Inc., Richmond, Va.
WIZARD — Belting hose and packing. Hamilton Rubber Mfg. Co., Trenton, N.J.
WIZARD—Plain engine lubricators. The D. T. Williams Valve Co., Cincinnati, O.
WIZARD—Tape rules. The Lufkin Rule Co., Saginaw, Mich.
WIZARD JUNIOR—Tape-rules. The Lufkin Rule Co., Saginaw, Mich.
WM. PENN—Manila rope. The Edwin H. Fitler Co., Philadelphia, Pa.
WODACK—Electric drills, hammers, grinders, buffers and groovers. Wodack Electric Tool Corp., Chicago, Ill.
WOLF—Hose couplings. Boston Woven Hose & Rubber Co., Cambridge, Mass.
WOLF—Portable timber sawing machines. Reed-Prentice Corp., Worcester, Mass.
WOLVERINE—Lubricators. Essex Brass Corp., Detroit, Mich.
WOLVERINE — Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
WOLVERINE—Seamless copper, brass and aluminum tubing. Wolverine Tube Co., Detroit, Mich.
WOLVERINE — Wheelbarrows. Lansing Co., Lansing, Mich.
WOMPCO — Ferrous alloy. Worthington Pump and Machinery Corp., Harrison, N. J.
WONDER—Concrete mixers. Construction Machinery Co., Waterloo, Iowa.
WONDER—Gas engine lubricators. The D. T. Williams Valve Co., Cincinnati, O.
WONDERTAN—Leather belting. F. W. McLanathan & Son, Lawrence, Mass.
WOOD'S—Power transmission equipment, V-belt drives, etc. T. B. Wood's Sons Co., Chambersburg, Pa.
WOODPECKER—Air vibrators. Sutorbilt Corp., Los Angeles, Calif.
WOOSTER—Belting. Duryea Manufacturing Co., Bayonne, N. J.
WORCESTER—Gauge glass cutters and flue brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
WORKACE—Woodworking machinery. J. D. Wallace & Co., Chicago, Ill.
WORKWELL—Sifter brush belting and brushes. Victor Balata & Textile Belting Co., New York, N. Y.
WORLD—Belting and hose. Home Rubber Co., Trenton, N. J.
WORRALL—Pulley clutches and cut-off couplings. Kinney Manufacturing Co., Boston, Mass.
WORTHINGTON-GAMON—Oil, hot water, etc., meters. Worthington-Gamon Meter Co., Harrison, N. J.
WORTHITE—Acid resistant steel. Worthington Pump & Machinery Corp., Harrison, N. J.
WORTHY—Sight feed gas engine lubricators. The D. T. Williams Valve Co., Cincinnati, Ohio.
WRICO—Chain hoists and cranes. Wright Manufacturing Division of American Chain Co., York, Pa.
WRIGHT — Chain hoists and cranes. Wright Manufacturing Div. of American Chain Co., York, Pa.
WRIGHT WAY—Chain hoists and cranes. Wright Manufacturing Division of American Chain Co., York, Pa.
WYANDOT—Plain engine lubricators. The D. T. Williams Valve Co., Cincinnati, O.
WYNN—Fire clay, brick. General Refractories Co., Philadelphia, Pa.

X

X-TRACK-TOR—Car unloaders. The Jeffrey Manufacturing Co., Columbus, Ohio.
X F SWISS PATTERN—Files. Nicholson File Co., Providence, R. I.
XL BRAND—Mechanical leathers, hydraulic packings; leather, fibre, felt and composition washers. Excelsior Leather Washer Mfg. Co., Rockford, Ill.
XL DOUBLE TANNED—Leather belting, cups and flanges. Detroit Oak Belting Co., Detroit, Mich.
XL WATERPROOF—Leather belting and packings. Detroit Oak Belting Co., Detroit, Mich.
XLNC—Dressings. Commercial Chemical Co., Boston, Mass.
X-RAY—Flood lights. Curtis Lighting, Inc., Chicago, Ill.
XX—Dredge chain. The McKay Co., Pittsburgh, Pa.
XX—Hose, packing, matting and cement. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
XXCY—Loom pickers. E. H. Jacobs Manufacturing Co., Danielson, Conn.
XXXX NICKEL—Babbitt metal. Federated Metals Corp., New York, N. Y.
XACTO—Displacement meters for gasoline and oils. S. F. Bowser & Co., Fort Wayne, Ind.
XTRA—Shovels. Ingersoll Steel & Disc Co., New Castle, Ind.

Y

YANKEE — Carpenters' and mechanics' tools. North Bros. Mfg. Co., Philadelphia, Pa.
YANKEE—Drill grinders. Covel-Hanchett Co., Big Rapids, Mich.
YANKEE B—Stone drills. The Dallett Co., Philadelphia, Pa.
YARNMAKER—Leather belting. Chicago Belting Co., Chicago, Ill.
YARWAY—Valves, spray nozzles, water columns, gauges, expansion joints, etc. Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.
YELLOW STRAND—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
YEOMAN—Belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
YUKON—Pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.

Z

Z METAL—Chain and castings. Chain Belt Co., Milwaukee, Wis.
ZENEL — Wrenches and tools. Bonney Forge and Tool Works, Allentown, Pa.
ZENITH—Lawn sprinklers. W. D. Allen Mfg. Co., Chicago, Ill.
ZENITH—Pump valves. Rhopac Products Corp., Chicago, Ill.
ZEPHYR—Hand saws. The Ohlen-Bishop Co., Columbus, Ohio.
ZERING—Factory and warehouse trucks. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.
ZERO—Cements, refractories, etc. Standard Fuel Engineering Co., Detroit, Mich.
ZERO—Sight feed lubricators. Detroit Lubricator Co., Detroit, Mich.
ZIP-LIFT—Electric hoists. Harnischfeger Corp., Milwaukee, Wis.
ZULU—Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

NAMES AND ADDRESSES

of Manufacturers of Mill, Mine, Power and General Industrial Supplies, Equipment and Tools Whose Products are Shown in the Classified List.

IN this section are arranged alphabetically the names of manufacturers of mill, mine, power and general industrial supplies, equipment and tools whose products are listed in the Classified List together with their addresses. Only one address is given for each company, that being its main or general sales office, or the one otherwise specified by the company.

Disregard individuals' initials or the word "The" in locating the name of a manufacturer. The name of a company such as D. B. Gorboud & Co., would be listed "Gorboud, D. B., & Co." Where the prefix "The" is used, a company is listed as follows: "Morgan Co., The." Where initials form the main part of a name, as, for instance, "B. & R. Pipe Co.," the names of such companies are grouped with others of a similar type at the start of listings appearing under the first initial. For instance, "B. & R. Pipe Co." would be found among the first few names appearing under "B".

For convenience, we have generally used "Co." instead of "Company" and "Corp." instead of "Corporation," regardless of whether the company or corporation spells out the word. Similarly, we use "Inc." uniformly instead of "Incorporated."

A

Abrasive Co. Division of Simonds Saw and Steel Co., Tacony & Fraley Sts., Philadelphia, Pa.
Abrasive Products Co., The, South Braintree, Mass.
Ace Drill Co., 13835 Jennings St., Detroit, Mich.
Acheson Manufacturing Co., Fleet St. & P. & L. E. R. R., Rankin, Pa.
Ackermann, Steffan & Co., 4532 Palmer St., Chicago, Ill.
Acme Asbestos Covering & Flooring Co., 1301 Fulton St., Chicago, Ill.
Acme Machine Products Co., 500 W. Willard St., Muncie, Ind.
Acme Steel Co., 2824 Archer Ave., Chicago, Ill.
Adams Grease Gun Corp., 54-62 West 21st St., New York, N. Y.
Adjustable Clamp Co., 413 N. Ashland Ave., Chicago, Ill.
Advance Car Mover Co., Inc., 112 N. Outagamie St., P. O. Box 536, Appleton, Wis.
Advance Packing & Supply Co., 618 W. Adams St., Chicago, Ill.
Aeroil Burner Co., Inc., 561 Park Ave., West New York, N. J.
Ahlberg Bearing Co., 317-21 E. 29th St., Chicago, Ill.
Air Reduction Sales Co., 60 East 42nd St., New York, N. Y.
Air-Way Pump Co., 625 W. Jackson Blvd., Chicago, Ill.
Ajax Flexible Coupling Co., Westfield, N. Y.
Akron Metallic Gasket Co., 189 N. Union St., Akron, Ohio.
Aldon Co., The, 3338 Ravenswood Ave., Chicago, Ill.
Aldora Mills, Thomaston, Ga.
Alexander Brothers, Inc., 406 N. Third St., Philadelphia, Pa.
Alexander City Cotton Mills, Alexander City, Ala.
Alexander, E. P., & Son, Inc., Clifton Heights, Del. Co., Pa.
Alfol Insulation Co., Inc., Chrysler Bldg., New York, N. Y.
All-Steel-Equip Co., Inc., 607 John St., Aurora, Ill.
All Steel Welded Truck Corp., 1141 Railroad Ave., Rockford, Ill.
Allen & Billmyre Co., Inc., 814 Grand Central Palace, New York, N. Y.
Allen, L. B., Co., Inc., 6730 Bryn Mawr Ave., Chicago, Ill.
Allen Mfg. Co., The, 133 Sheldon St., Hartford, Conn.
Allen, W. D., Mfg. Co., 566 W. Lake St., Chicago, Ill.
Allentown Leather Belting Co., 722 Linden St., Allentown, Pa.
Allis-Chalmers Manufacturing Co., 1126 S. 70th St., West Allis, Wis.
Allis, Louis, Co., The, 427 E. Stewart St., Milwaukee, Wis.
Alloy Steel Division of Republic Steel Corp., Massillon, Ohio.
Alloy Steel Products Co., 1300 Elizabeth Ave., Linden, N. J.
Almond, T. C., Inc., Ashburnham, Mass.
Alpha Metal & Rolling Mills, Inc., 363 Hudson Ave., Brooklyn, N. Y.
Aluminum Company of America, Gulf Bldg., Pittsburgh, Pa.
Aluminum Industries, Inc., 2416 Beekman St., Cincinnati, Ohio.
Alvord-Polk Tool Co., 110-175 Gerhard St., Millersburg, Pa.
American Abrasives Co., 100 Union St., Westfield, Mass.
American Air Compressor Corp., 558 Hamilton Ave., Brooklyn, N. Y.
American Air Filter Co., Inc., First and Central Ave., Louisville, Ky.
American Asphalt Paint Co., 43 E. Ohio St., Chicago, Ill.
American Blower Corp., 6000 Russell St., Detroit, Mich.
American Brake Materials Corp., 4660 Merritt Ave., Detroit, Mich.
American Brass Co., The, American Metal Hose Branch, P. O. Box 791, Waterbury, Conn.
American Cable Co., Inc., Wilkes-Barre, Pa.
American Cap & Set Screw Co., Waukegan, Ill.
American Car and Foundry Co., 30 Church St., New York, N. Y.
American Cast Iron Pipe Co., 16th St., cor. 30th Ave., N., Birmingham, Ala.
American Chain Co., Inc., 929 Connecticut Ave., Bridgeport, Conn.
American Die & Tool Co., Inc., 211 Buttonwood St., Reading, Pa.
American Diesel Engine Co., Oakland, Calif.
American Electrical Heater Co., Detroit, Mich.
American Emery & Stone Co., 22 Warren St., New York, N. Y.
American Emery Wheel Works, Richmond Square, Providence, R. I.
American Engineering Co., 2436 Aramingo Ave., Philadelphia, Pa.
American Filter Co., 655-665 Buffum St., Milwaukee, Wis.
American Fire Hose Co., 1500 Walnut St., Philadelphia, Pa.
American Fork & Hoe Co., 1623 Euclid Ave., Cleveland, Ohio.
American Foundry Equipment Co., 700 Byrkit St., Mishawaka, Ind.
American Foundry & Mfg. Co., 11th and Hebert St., St. Louis, Mo.
American Handle Co., P. O. Box 186, Jonesboro, Ark.
American Hoist & Derrick Co., 63 S. Robert St., St. Paul, Minn.
American Injector Co., 1481 14th St., Detroit, Mich.
American-LaFrance and Foamite Corp., 100 E. LaFrance St., Elmira, N. Y.
American Logging Tool Co., Evart, Mich.
American M. A. N. Corp., 40 Rector St., New York, N. Y.
American Manufacturing Co., Noble and West Sts., Brooklyn, N. Y.
American Metal Hose Branch of The American Brass Co., 67 Jewelry St., Waterbury, Conn.
American MonoRail Co., 13107 Athens Ave., Cleveland, Ohio.
American Non-Gran Bronze Corp., Lincoln Highway, Berwyn, Pa.
American Nut & Bolt Fastener Co., 2029-2045 Doerr St., Pittsburgh, Pa.
American Oil & Grease Corp., 201 N. Wells St., Chicago, Ill.
American Optical Co., Southbridge, Mass.
American Pulley Co., The, 4200 Wissahickon Ave., Philadelphia, Pa.
American Quick Coupling Co., 111 Sutter St., San Francisco, Calif.
American Radiator Co., 40 W. 40th St., New York, N. Y.
American Roller Bearing Co., 416 Melwood Ave., Pittsburgh, Pa.
American Rolling Mill Co., The, Curtis St., Middletown, O.
American Sand-Banum Co., Inc., 342 Madison Ave., New York, N. Y.
American Sanitary Rag Co., 1001 W. North Ave., Chicago, Ill.
American Saw & Mfg. Co., 67 Boylston St., Springfield, Mass.
American Screw Co., 21 Stevens St., Providence, R. I.
American Solder & Flux Co., Wayne Ave. & Berkley, Philadelphia, Pa.

American Stamping Co., Battle Creek, Mich.
American Steam Pump Co., Battle Creek, Mich.
American Steel Scraper Co., The, Wilkinson & Court Sts., Sidney, Ohio.
American Steel & Wire Co., 208 S. La Salle St., Chicago, Ill.
American Steel Wool Mfg. Co., Inc., 42-44 Orchard St., Long Island City, N. Y.
American Swiss File & Tool Co., 410 Trumbull St., Elizabeth, N. J.
Ames, B. C., Co., Off Lexington St., Waltham, Mass.
Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
Ampco Metal, Inc., 3830 W. Burnham St., Milwaukee, Wis.
Amthor Testing Instrument Co., Inc., 309 Johnson St., Brooklyn, N. Y.
Anaconda Wire & Cable Co., 25 Broadway, New York, N. Y.
Anchor Duck Mills, Rome, Ga.
Anderson Bros. Mfg. Co., 1907 Kishwaukee St., Rockford, Ill.
Anderson Engine & Foundry Co., Anderson, Ind.
Anderson, V. D., Co., The, 1935 W. 96th St., Cleveland, Ohio.
Angle Steel Stool Co., Plainwell, Mich.
Ansonia Coated Abrasives, Inc., 432 Twelfth St., Brooklyn, N. Y.
Anthes Force Oiler Co., 20th & Avenue M, Fort Madison, Iowa.
Anti-Borax Compound Co., 1506 Wall St., Fort Wayne, Ind.
Appleton-Atlas Car Mover Corp., 2947 N. 30th St., Milwaukee, Wis.
Appleton Electric Co., 1701-29 Wellington Ave., Chicago, Ill.
Aragon Mills, Aragon, Ga.
Arcade Mfg. Co., E. Shawnee, Freeport, Ill.
Arcos, Inc., 401 North Broad St., Philadelphia, Pa.
Arguto Oilless Bearing Co., 149 Berkley St., Wayne Junction, Philadelphia, Pa.
Armour Sand Paper Works, 1355 W. 31st St., Chicago, Ill.
Armstrong-Blum Mfg. Co., 339 N. Francisco Ave., Chicago, Ill.
Armstrong-Bray & Co., 308 Sheldon St., Chicago, Ill.
Armstrong Bros. Tool Co., 332 N. Francisco Ave., Chicago, Ill.
Armstrong Cork Products Co., Lancaster, Pa.
Armstrong Machine Works, 816 Maple St., Three Rivers, Mich.
Armstrong Manufacturing Co., 304 Knowlton St., Bridgeport, Conn.
Armstrong Truck Co., North Wales, Pa.
Arro Expansion Bolt Co., Marion, Ohio.
Arrow Boiler Compound Co., 13 S. 1st St., St. Louis, Mo.
Art Metal Construction Co., Jamestown, N. Y.
Asbestos Mfg. Co., P. O. Box 190, Huntington, Ind.
Asch & Co., Inc., 117 West 63rd St., New York, N. Y.
Athol Machine & Foundry Co., 82 South St., Athol, Mass.
Atkins, E. C., and Co., 420 S. Illinois St., Indianapolis, Ind.
Atlantic Manufacturing Co., 104 Walnut St., Wilmington, Del.
Atlantic Metal Hose Co., Inc., 123 West 64th St., New York, N. Y.
Atlantic Screw Works, Hartford, Conn.
Atlas-Ansonia Co., 54-62 Grant St., New Haven, Conn.
Atlas Ball Co., Glenwood Ave. and American St., Philadelphia, Pa.
Atlas Bolt & Screw Co., The, 1130 Ivanhoe Rd., Cleveland, Ohio.
Atlas Brass Foundry, 1901-1911 Santa Fe Ave., Los Angeles, Calif.
Atlas Brass Foundry Co., The, 1000 S. Front St., Columbus, Ohio.
Atlas Imperial Diesel Engine Co., Oakland, Calif.
Atlas Leather Co., Caseyville, Ill.
Atlas Press Co., 1206 N. Pitcher St., Kalamazoo, Mich.
Atlas Tack Corp., Fairhaven, Mass.
Auburn Ball Bearing Co., 75 Clarissa St., Rochester, N. Y.
Auburn Manufacturing Co., 14 Sigourney St., Hartford, Conn.
Aurora Equipment Co., Aurora, Ill.
Aurora Pump Co., 619 Loucks St., Aurora, Ill.
Aurora Steel Products Co., 150 3rd St., Aurora, Ill.
Automatic Nut Co., Lebanon, Pa.
Automatic Primer Co., 111 W. Washington St., Chicago, Ill.
Autovent Fan & Blower Co. 1807-23 N. Kostner Ave., Chicago, Ill.
Avey Drilling Machine Co., The, Cincinnati, Ohio.

B

Babbitt Steam Specialty Co., 55 S. Water St., New Bedford, Mass.
Babcock & Wilcox, New York, N. Y.
Babcock, W. W., Co., The, 15 Delaware St., Bath, N. Y.
Bache, Semon, & Co., 636 Greenwich St., New York, N. Y.
Badger Fire Extinguisher Co., 31 St. James Ave., Boston, Mass.
Baeder Adamson Co., Forest & Fauquier Sts., St. Paul, Minn.
Bahnson Co., The, 1605 Reynolds Bldg., Winston-Salem, N. C.
Baird Machine Co., The, Bridgeport, Conn.
Baker Brothers, Inc., Post St., Toledo, Ohio.
Baker-Hansen Mfg. Co., 1900-1912 Park St., Alameda, Calif.
Baldor Electric Co., 4352-64 Duncan Ave., St. Louis, Mo.
Baldwin Belting & Leather Co., Inc., 85 Chambers St., New York, N. Y.
Baldwin-Duckworth Chain Corp., 369 Plainfield St., Springfield, Mass.
Baltimore Belting Co., 23 and 25 South Gay St., Baltimore Md.
Baltimore Valve Corp., 2300 Sinclair Lane, Baltimore, Md.
Bantam Ball and Roller Bearing Co., 3701 West Sample St., South Bend, Ind.
Barber Asphalt Co., The, 1600 Arch St., Philadelphia, Pa.
Barber-Colman Co., Loomis St., Rockford, Ill.
Barcalo Mfg. Co., 225 Louisiana St., Buffalo, N. Y.
Barco Manufacturing Co., 1801 Winnemac Ave., Chicago, Ill.
Barnes Drill Co., 850 Chestnut St., Rockford, Ill.
Barnes, W. F. & John, Co., 301 S. Water St., Rockford, Ill.
Barnes, W. O., Co., Inc, 1297 Terminal Ave., Detroit, Mich.
Barrell, W. L., Co. of New York, 40 Worth St., New York.
Barrett Co., The, 40 Rector St., New York, N.Y.
Barrett-Cravens Co., 3250 W. 30th St., Chicago, Ill.
Barrett, Leon J., Co., The, Box 378, Worcester, Mass.
Barrett, Wm. L., Co., 30 School St., Bristol, Conn.
Bartlett, C. O., and Snow Co., The, 6200 Howard Ave., Cleveland, Ohio.
Bartlett, Edwin E., Co., 41 Crown St., Nashua, N. H.
Bartlett Hayward Co., The, 200 Scott St., Baltimore, Md.
Bartlett Manufacturing Co., 3023 East Grand Blvd., Detroit, Mich.
Bassick Co., The, 38 Austin St., Bridgeport, Conn.
Bastian-Blessing Co., 240 E. Ontario St., Chicago, Ill.
Bastian-Morley Co., Truesdell Ave., Laporte, Ind.
Batavia Clamp Co., Inc., Batavia, N. Y.
Bate Boiler Efficiency Co., Elm & Sansom Sts., Conshohocken, Pa.
Bath, John, & Co., Inc., 18 Grafton St., Worcester, Mass.
Bauer Manufacturing Co., The, 1429 E. Bowman St., Wooster, Ohio.
Baum's Castorine Co., 200 Mathew St., Rome, N. Y.
Bay State Emery Wheel Co., Not Inc., 54 Hermon St., Worcester, Mass.
Bay State Stamping Co., 380 Chandler St., Worcester, Mass.
Bay State Tap & Die Co., 75 Chauncy St., Mansfield, Mass.
Beach Mfg. Co., Mill & High Sts., Montrose, Pa.
Beall Tool Division, Hubbard & Co., P. O. Box 70, East Alton, Ill.
Beaumont, R. H., Co., 319 Arch St., Philadelphia, Pa.
Beaver Pipe Tools, Inc., 1937 Midana Ave., Warren, Ohio.
Beck, Wm. and Chas., Lawrence, Mass.
Beckley Perforating Co., North Ave., Garwood, N. J.
Beebe Bros., 2724 Sixth Ave., S., Seattle, Wash.
Behr-Manning Corp., Troy, N. Y.
Belden Machine Co., The, Whalley & West Rock Ave., New Haven, Conn.
Belfield, H., Co., 435 N. Broad St., Philadelphia, Pa.
Belleville Wire Cloth Co., 139 Little St., Belleville, N. J.
Bellevue Industrial Furnace Co., 2971 Bellevue Ave., Detroit, Mich.
Belmont Packing & Rubber Co., The, Butler & Sepviva St., Philadelphia, Pa.
Belmont Smelting & Refining Works, Inc., 310 Belmont Ave., Brooklyn, N. Y.
Beltonic Products Co., N. Leclaire & Moffat St., Cragin Station, Chicago, Ill.
Bemis & Call Co., 125 Main, Springfield, Mass.
Bendix Products Corporation, South Bend, Ind.
Benjamin Electric Manufacturing Co., Northwest Highway & Seegers Rd., Des Plaines, Ill.
Benson, Alexander R., Co., Inc., 1070 South Bay Road, Hudson, N. Y.
Berbecker, Julius, & Sons, Inc., 15 E. 26th St., New York, N. Y.
Berger Manufacturing Co. (Subsidiary of Republic Steel Corporation), 1038 Belden Ave., N. E., Canton, Ohio.
Bergman Tool Mfg. Co., 1573-75 Niagara St., Buffalo, N. Y.
Bernard, Charles A., Machine Co., 210 Main St., Gardner, Mass.
Bernz, Otto, Co., Inc., 280 Lyell Ave., Rochester, N. Y.
Berry Brothers, 350 E. First Ave., Columbus, Ohio.
Besly, Charles H., and Co., 118 N. Clinton St., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Bickford, H., & Co., 1002 Union Ave., Lakeport, N. H.
Billings & Spencer Co., The, 1 Laurel St., Hartford, Conn.
Binghamton Flexible Shaft Co., Johnson City, N. Y.
Binks Manufacturing Co., 3114-40 Carroll Ave., Chicago, Ill.
Bishop & Babcock Sales Co., The, 4901-4915 Hamilton Ave., N. E., Cleveland, Ohio.
Black & Decker Mfg. Co., The, 600 E. Pennsylvania Ave., Towson, Md.
Black Diamond Paint & Varnish Works, Inc., The, 1209-1217 Bank St., Cincinnati.
Blacker Engineering Corp., 123 Liberty St., New York, N. Y.
Blackhawk Mfg. Co., 5325 W. Rogers St., Milwaukee, Wis.
Blackmer Pump Co., 1809 Century Ave., S. W., Grand Rapids, Mich.
Blatchford Corp., 80 E. Jackson Blvd., Chicago, Ill.
Blaw-Knox Co., Pittsburgh, Pa.
Bliss, Fabyan & Co., 32 Thomas, New York, N. Y.
Bliss & Laughlin, Inc., 155th St., Harvey, Ill.
Blount, J. G., Co., Woodland St., Everett, Mass.
Blue Seal Chemical Co., 177-179 W. Westfield Ave., Roselle Park, N. J.
Boekel, Wm., & Co., 509-19 Vine St., Philadelphia, Pa.
Boice-Crane Co., 1730 Norwood Ave., Toledo, Ohio.
Bond, Charles, Co., 617 Arch St., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Bonner & Barnewall, Inc., 92 Bleecker St., New York, N. Y.
Bonney Forge & Tool Works, Allentown, Pa.
Booth Felt Co., Inc., The, 463 19th St., Brooklyn, N. Y.
Bordo, L. J., Co., Inc., 115 New St., Glenside, Pa.
Boss Bolt & Nut Co., 3403 W. 47th St., Chicago, Ill.
Boston Gear Works, Inc., North Quincy, Mass.
Boston & Lockport Block Co., 102 Conder St., East Boston, Mass.
Boston Woven Hose & Rubber Co., 29 Hampshire St., Cambridge, Mass.
Botfield Refractories Co., Swanson and Clymer Sts., Philadelphia, Pa.
Bott Mills, Lowell, Mass.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Bousman Mfg. Co., 1157-9 Plainfield Ave., N. E., Grand Rapids, Mich.
Bowser, S. F., & Co., Fort Wayne, Ind.
Boyer Fire Apparatus Co., Logansport, Ind.
Boyle, A. S., Company, The, 1934 Dana Ave., Cincinnati, Ohio.
Boyle, John, & Co., Inc., New York, N. Y.
Bradlee & Co., Inc., 1615 N. Delaware Ave., Philadelphia, Pa.
Bradley Washfountain Co., 2203 W. Michigan St., Milwaukee, Wis.
Brandon Corp., Greenville, S. C.
Brazoe Valley Cotton Mills, West, Texas.
Breeze Corporations, Inc., 24 S. 6th St., Newark, N. J.
Breuer Electric Manufacturing Co., 852 Blackhawk St., Chicago, Ill.
Bridgeport Hdwe. Mfg. Corp., The, 461 Iranistan Ave., Bridgeport, Conn.
Bridgeport Screw Co., Bridgeport, Conn.
Briggs & Stanton Corp., 2711 N. 13th St., Milwaukee, Wis.
Bristol Brass Corp., The, 101 Broad St., Bristol, Conn.
Bristol Co., The, Waterbury, Conn.
Broderick & Bascom Rope Co., 4203 N. Union Blvd., St. Louis, Mo.
Brohard Co., The, State Rd. & Shelmire St., Philadelphia, Pa.
Bronander Diesel Engine Co., North Arlington, N. J.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Brookside Mills, W. Baxter Ave., N. W. cor. So. Ry., Knoxville, Tenn.
Broomfield Mfg. Co., Inc., 211 Northern Ave., Boston, Mass.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., 259-261 North Lawrence St., Philadelphia, Pa.
Brown Engineering Co., 123 N. 3rd St., Reading, Pa.
Brown Instrument Co., The, Wayne & Roberts Aves., Philadelphia, Pa.

Brown, R. H., & Co., 170 Wood St., New Haven, Conn.
Brown & Sharpe Mfg. Co., 235 Promenade St., Providence, R. I.
Brownie Manufacturing Co., Inc., 2921-2923 Pennsylvania St., Fort Wayne, Ind.
Brunner Manufacturing Co., Broad & Gilbert Sts., Utica, N. Y.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Buchanan, C. G., Chemical Co., 4640 Baker Ave., Norwood, Cincinnati, Ohio.
Buckeye Brass & Mfg. Co., The, 6410 Hawthorne Ave., Cleveland, Ohio.
Buckeye Forging Co., The, 10002 Harvard Ave., Cleveland, Ohio.
Buckeye Machine Co., Lima, Ohio.
Buckeye Portable Tool Co., The, 29 W. Apple St., Dayton, Ohio.
Buda Co., The, Harvey, Ill.
Buegeleisen, Harry, 22 Bergen St., Brooklyn, N. Y.
Buffalo Batt & Felt Corp., Ellicott Rd., Depew, N. Y.
Buffalo Belting Works, 18 Ellicott St., Buffalo, N. Y.
Buffalo Bolt Co., North Tonawanda, N. Y.
Buffalo Fire Appliance Corp., 44 Central Ave., Buffalo, N. Y.
Buffalo Forge Co., 478 Broadway, Buffalo, N. Y.
Buffalo Meter Co., 2912 Main St., Buffalo, N. Y.
Buffalo Nipple & Machine Co., Inc., 335 Glenwood Ave., Buffalo, N. Y.
Buffalo Weaving & Belting Co., 215 Chandler St., Buffalo, N. Y.
Buffalo Wire Works Co., Inc., 589 Terrace, Buffalo, N. Y.
Bullard, E. D., Co., 275 8th St., San Francisco, Cal.
Bunting Brass & Bronze Co., 715 Spencer St., Toledo, Ohio.
Burgess Battery Co., Freeport, Ill.
Burke Machine Tool Co., The, 297 E. 16th St., Conneaut, Ohio.
Burning Brand Co., 1400 W. Fulton St., Chicago, Ill.
Burnley Battery Mfg. Co., Clay St., North East, Pa.
Burr, John T., & Son, 429 Kent Ave., Brooklyn, N. Y.
Burrell Belting Co., 413 S. Hermitage Ave., Chicago, Ill.
Burrows, F. A., Mfg. Co., 1638 York St., York, Pa.
Burt Manufacturing Co., The, 44½ South St., Akron, Ohio.
Business Men's Paper Press Co., Wayland, Mich.
Bussmann Mfg. Co., University at Jefferson, St. Louis, Mo.
Butcher & Hart Mfg. Co., 1130 Nebraska Ave., Toledo, Ohio.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Byers, A. M., Company, Clark Bldg., Pittsburgh, Pa.

C

C-O-Two Fire Equipment Co., 560 Belmont Ave., Newark, N. J.
Cactus Mat & Patch Mfg. Co., 453 Commercial St., Los Angeles, Calif.
Calder, Geo. H., Co., 628 N. Prince St., Lancaster, Pa.
California Cotton Mills, 310 California St., Oakland, Cal.
California Screw Co., 74 Clementina St., San Francisco, Calif.
California Tanning Co., 1905-7-9 Shenandoah Ave., St. Louis, Mo.
Callaway Mills, Inc., 345 Madison Ave., New York.
Campbell, Andrew C., Division of American Chain Co., Inc., 929 Connecticut Ave., Bridgeport, Conn.
Campbell-Hausfeld Co., The, Harrison, O.
Cambridge Wire Cloth Co., 1313 Washington St., Cambridge, Md.
Canedy-Otto Mfg. Co., Main St. & East End Ave., Chicago Heights, Ill.
Canfield, M. C., Sons Co., 93 Wilsey St., Newark, N. J.
Cannon Oiler Co., Keithsburg, Ill.
Canton Culvert Division of Republic Steel Corp., Canton, Ohio.
Canton Foundry & Machine Co., The, 6400 Breakwater Ave., Cleveland, Ohio.
Capen Belting & Rubber Co., 1920 Washington Ave., St. Louis, Mo.
Capitol Brass Division, Bohn Aluminum & Brass Corp., 2306 Franklin St., Detroit, Mich.
Carboloy Co., Inc., 2481 East Grand Blvd., Detroit, Mich.
Carbondale Machine Corp., Worthington Ave., Harrison, N. J.
Carborundum Co., Niagara Falls, N. Y.
Carborundum Co., The, Hutto Machine Division, 515 Lycaste Ave., Detroit, Mich.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Rumford Ave., Mansfield, Mass.
Cardwell Machine Co., The, 1901 E. Franklin St., Richmond, Va.
Carey, Philip, Co., The, Wayne Ave., Lockland, Ohio.
Carnegie-Illinois Steel Corp, 434 Fifth Ave., Pittsburgh, Pa.
Carolus Manufacturing Co., P. O. Box 417, Sterling, Ill.
Carroll Chain Co., The, 265 Hosack St., Columbus, Ohio.
Carson-Newton Co., 21-23 Prospect St., Newark, N. J.
Carter Paint Co., Liberty, Ind.
Case, J. R., Manufacturing Co., 207 Bridge St., Jonesboro, Ark.
Case Crane & Kilbourne Jacobs Co., The, Lincoln and Fourth Sts., Columbus, Ohio.
Cash, A. W., Valve Mfg. Co., 600-616 N. Water St., Decatur, Ill.
Caterpillar Tractor Co., Peoria, Ill.
Central Automatic Sprinkler Co., 247 E. Ashmead St., Philadelphia, Pa.
Central Forging Co., The, Mill St., Catawissa, Pa.
Central Rubber & Supply Co., 120 S. Meridian, Indianapolis, Ind.
Central Steel and Wire Co., 4545 S. Western Blvd., Chicago, Ill.
Central Tube Co., First National Bank Bldg., Pittsburgh, Pa.
Central Valve Mfg. Co., 231 E. 95th St., Chicago, Ill.
Century Electric Co., 1806 Pine St., St. Louis, Mo.
Chadwick & Trefethen, 32 Bow St., Portsmouth, N. H.
Chain Belt Co., 1622 W. Bruce St., Milwaukee, Wis.
Champion Blower & Forge Co., Charlotte St. & Harrisburg Pike, Lancaster, Pa.
Champion Lamp Works, 600 Broad St., Lynn, Mass.
Champion Manufacturing Co., 7332-48 Kimbark Ave., Chicago, Ill.
Champion Pneumatic Machinery Co., 8164 S. Chicago Ave., Chicago, Ill.
Chandler Products Corp., 1491 Chardon Rd., Cleveland, Ohio.
Channon, J. H., Corp., 1455 W. Hubbard St., Chicago, Ill.
Chapin, R. E., Mfg. Works, The, 29 Liberty St., Batavia, N. Y.
Chapin, W. R., Co., The, P. O. Box 692, Indianapolis, Ind.
Chapman Bearing & Engineering Co., 1050 Military Rd., Buffalo, N. Y.
Chapman Valve Mfg. Co., The, 203 Hampshire St., Indian Orchard, Mass.
Chase Brass & Copper Co., 236 Grand St., Waterbury, Conn.
Chase Foundry & Mfg. Co., The, 2715 Parsons Ave., Columbus, Ohio.
Chattanooga Boiler and Tank Co., P. O. Box 110, Chattanooga, Tenn.
Chattanooga Machinery Co., 1000-1016 Watkins Sts., Chattanooga, Tenn.
Chattanooga Saw Works, 1512 William St., Chattanooga, Tenn.
Chattanooga Wheelbarrow Co., 1311 E. Main St., Chattanooga, Tenn.
Chesebro Whitman Co., Inc., 3821—12th St., Long Island City, N. Y.
Chesterton, A. W., Co., 64 India St., Boston, Mass.
Chicago Belting Co., Green and Washington Sts., Chicago, Ill.
Chicago Die Casting Mfg. Co., 2510 W. Monroe St., Chicago, Ill.
Chicago Engineer Supply Co., 116 W. Illinois St., Chicago, Ill.
Chicago Expansion Bolt Co., 126 S. Clinton St., Chicago, Ill.
Chicago Eye Shield Co., 2329 Warren Blvd., Chicago, Ill.
Chicago Nipple Mfg. Co., 1966 Southport Ave., Chicago, Ill.
Chicago Pipethread Machine Co., Racine, Wis.
Chicago Pneumatic Tool Co., 6 E. 44th St., New York, N. Y.
Chicago Pulley & Shafting Co., 19 N. Desplaines St., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, 1286 Elston Ave., Chicago, Ill.
Chicago Screw Co., The, 1026 S. Homan Ave., Chicago, Ill.
Chicago Tool & Engineering Co., 8389 S. Chicago Ave., Chicago, Ill.
Chicago Tubing & Braiding Co., 1315 S. Third Ave., Maywood, Ill.
Chicago Watchman's Clock Co., 1526 S. Wabash Ave., Chicago, Ill.
Chicago Wheel & Mfg. Co., 112 S. Aberdeen St., Chicago, Ill.
Chisholm-Moore Hoist Corp., Fremont Ave., Tonawanda, N. Y.
Cincinnati Electrical Tool Co., The, Madison & Edwards Roads, Cincinnati, Ohio.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Cincinnati Rubber Mfg. Co., The, Franklin Ave. & B. & O. R. R., Norwood, Cincinnati, Ohio.
Cincinnati Specialty Mfg. Co., Inc., 1907 Powers St., Cincinnati, Ohio.
Cincinnati Tool Co., The, Montgomery Ave., Cincinnati, Ohio.
Clamps, Inc., 341 39th St., Brooklyn, N. Y.
Clancy, J. R., Inc., Syracuse, N. Y.
Clark Bros. Bolt Co., Milldale, Conn.
Clark Bros. Co., Olean, N. Y.
Clark Equipment Co., Buchanan, Mich.
Clark, James, Jr., Electric Co., 600 E. Bergman St., Louisville, Ky.
Clark Manufacturing Co., The, 110 Turner St., Philadelphia, Pa.
Clayton & Lambert Mfg. Co., 11111 French Rd., Detroit, Mich.
Clements Mfg. Co., 6656 S. Narragansett Ave., Chicago, Ill.
Clemson Bros., Inc., 22 Cottage St., Middletown, N. Y.
Clendenin Bros., Inc., South & Balderson Sts., Baltimore, Md.
Cleveland Blow Pipe & Mfg. Co., The, 6505 Cedar Ave., Cleveland, Ohio.
Cleveland Cap Screw Co., 2927 E. 79th St., Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Broadway & Henry St., Cleveland, Ohio.
Cleveland Container Co., The, 10630 Berea Rd., Cleveland, Ohio.
Cleveland File Co., The, 3400 Hamilton Ave., Cleveland, Ohio.
Cleveland Graphite Bronze Co., The, 880 East 72nd St., Cleveland, Ohio.
Cleveland Pneumatic Tool Co., The, 3734 East 78th St., Cleveland, Ohio.
Cleveland Rock Drill Co., The, 3734 E. 78th St., Cleveland, Ohio.
Cleveland Twist Drill Co., The, 1242-1264 E. 49th St., Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cuyahoga & West 4th Sts., Cleveland, O.
Cleveland Wire Spring Co., The, East 38th St. & Hamilton Ave., Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw & Bolt Corp.), 3300 W. 58th St., Cleveland, Ohio.
Cling-Surface Co., 1017 Niagara St., Buffalo, N. Y.
Clipper Belt Lacer Co., 974-1042 Front Ave., N. W., Grand Rapids, Mich.
Clizbe Bros. Mfg. Co., Harrison & Place Sts., Plymouth, Ind.
Clopp, Geo. B., Iron Works, 3717 Filbert St., Philadelphia, Pa.
Clover Mfg. Co., 327 Main St., Norwalk, Conn.
Clow, James B., & Sons, 201-299 N. Talman Ave., Chicago, Ill.
Coe Manufacturing Co., The, Bank St., Painesville, Ohio.
Colling Hoist Co., 319 E. Van Buren St., Danville, Ill.
Colebrook's, W. H., Sons, Inc., 1419 S. McBride St., Syracuse, N. Y.
Coleman, Allan J., 116 W. Illinois St., Chicago, Ill.
Colladay Machine Works, 124 W. Venango St., Philadelphia, Pa.
Collins Co., The, Collinsville, Conn.
Collis Co., The, Clinton, Iowa.
Collmer Bros., 114 Lincoln Way E, South Bend, Ind.
Colmonoy, Inc., P. O. Box 977, Los Nietos, Calif.
Colorado Sanitary Wiping Cloth Co., 2637-41 W. 13th Ave., Denver, Colo.
Colson Corp., The, 361 Cedar St., Elyria, Ohio.
Colt's Patent Fire Arms Mfg. Co., 17 Vandyk Ave., Hartford, Conn.
Colton, Arthur, Co., 2600 E. Jefferson Ave., Detroit, Mich.
Columbia Mills, Columbia, S. C.
Columbia Steel Co., United States Steel Corp. Subsidiary, Russ Building, 235 Montgomery St., San Francisco, Cal.
Columbian Iron Works, 2501-31 Chestnut St., Chattanooga, Tenn.
Columbian Rope Co., Genesee St., Auburn, N. Y.
Columbian Vise & Mfg. Co., The, 9021 Bessemer Ave., Cleveland, Ohio.
Columbus Anvil & Forging Co., The, 123 W. Frankfort St., Columbus, Ohio.
Columbus Bolt Works Co., The, 291 North Water St., Columbus, Ohio.
Columbus McKinnon Chain Corp., Fremont & Fillmore Sts., Tonawanda, N. Y.
Commercial Chemical Co., 235 Medford St., Boston, Mass.
Commercial Diamond Co., 354 E. Congress St., Detroit, Mich.
Commonwealth Brass Corp., 5781-5835 Commonwealth Ave., Detroit, Mich.
Compton, W. H., Shear Co., The, 314-320 Camden St., Newark, N. J.
Conco Engineering Works, Mendota, Ill.
Congress Tool & Die Co., 8214 Collins Ave., Detroit, Mich.
Conklin, T. E., Brass & Copper Co., Inc., The, 54-60 LaFayette St., New York, N. Y.
Connor, Miles A., High and Cottage Sts., Lockport, N. Y.
Connors, Wm., Paint Mfg. Co., The, 669-685 River St., Troy, N. Y.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Brass Co., Summit Ave. and the R. R., Detroit, Mich.
Consolidated Instrument Co. of America, Inc., 4 N. Central Ave., Baltimore, Md.

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Consolidated Iron-Steel Mfg. Co., 1290 East 53rd St., Cleveland, Ohio.
Consolidated Metals Corp., 5531-5535 Woodward Ave., Detroit, Mich.
Construction Machinery Co., Waterloo, Ia.
Continental-Diamond Fibre Co., Newark, Del.
Continental Screw Co., Mt. Pleasant & Hathaway Rd., New Bedford, Mass.
Conway Clutch Co., The, 1543 Queen City Ave., Cincinnati, Ohio.
Cook, C. Lee, Manufacturing Co., Inc., 918 S. Eighth St., Louisville, Ky.
Cook, H. N., Belting Co., 401 Howard St., San Francisco, Calif.
Cook and Chick Co., 16 South Throop St., Chicago, Ill.
Cook & Riley, Inc., 411-17 S. Sangamon St., Chicago, Ill.
Cook's, Adam, Sons, Inc., Stiles St. & Elizabeth Ave., Linden, N. J.
Cooper-Bessemer Corp., Mt. Vernon, Ohio.
Coppus Engineering Corp., 344 Park Ave., Worcester, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Cordley & Hayes, 139-149 Hudson St., New York, N. Y.
Corley Co., The, 629 Grove St., Jersey City, N. J.
Corley Manufacturing Co., 7 Clifton Hills, Chattanooga, Tenn.
Corning Glass Works, P. O. Box 544, Corning, N. Y.
Corr, Patrick, & Sons, Inc., Trenton Ave. and Oakdale St., Philadelphia, Pa.
Corsicana Cotton Mills, P. O. Box 625, Corsicana, Texas.
Cortland Welding Compound Co., 12-16 Crawford St., Cortland, N. Y.
Cory, Chas., Corp., 754 Lexington Ave., Brooklyn, N. Y.
Couse & Bolten, Inc., 42-46 Lafayette St., Newark, N. J.
Covel-Hanchett Co., Big Rapids, Mich.
Cover, H. S., Station A, South Bend, Ind.
Cowles Tool Co., 2086 W. 110th St., Cleveland, Ohio.
Craftex Co., 60 E. 42nd St., New York, N. Y.
Craley, C. C., Mfg. Co., P. O. Box 192, Shillington, Pa
Crandall Packing Co., Maple Ave., Palmyra, N. Y.
Crane Co., 836 S. Michigan Ave., Chicago.
Crane Packing Co., 1800 Cuyler Ave., Chicago, Ill.
Creamer Glass Works, 317 E. Main St., Millville, N. J.
Crescent Belt Fastener Co., 247 Park Ave., New York, N. Y.
Crescent Tool Co., 200 Harrison St., Jamestown, N. Y.
Crescent Truck Co., Lebanon, Pa.
Crowell, D. J., & Crowell, F. G., 61 Terrace, Buffalo, N. Y.
Crown Cotton Mills, Dalton, Ga.
Crown Spray Gun Mfg. Co., 1216-1218 Venice Blvd., Los Angeles, Calif.
Crucible Steel Co. of America, The, 405 Lexington Ave., New York, N. Y.
Cullman Wheel Co., 1344 Altgeld, Chicago.
Cumberland Steel Co., 101 Williams St., Cumberland, Md.
Cummins Engine Co., Columbus, Ind.
Cuneo Press, Inc., The, 22nd, Canal & Grove Sts., Chicago, Ill.
Curry Brothers Oil Co., 22-26 Oliver St., Boston, Mass.
Curtin-Hebert Co., Inc., 9 Forest St., Gloversville, N. Y.
Curtis & Curtis Co., 328 Garden St., Bridgeport, Conn.
Curtis Lighting, Inc., 1123 W. Jackson Blvd., Chicago, Ill.
Curtis Machine Corp., Jamestown, N. Y.
Curtis Pneumatic Machinery Co., 1928 Kienlen Ave., St. Louis, Mo.
Cushman Chuck Co., The, 806 Windsor St., Hartford, Conn.
Cutler-Hammer, Inc., N. 12th St. & W. St. Paul Ave., Milwaukee, Wis.
Cutter Machine Co., 3727 Commonwealth Ave., Maplewood Station, St. Louis, Mo.
Cyclone Fence Co., Waukegan, Ill.

D

D. G. C. Trap & Valve Co., Inc., 366 Madison Ave., New York, N. Y.
Dake Engine Co., 632 Monroe St., Grand Haven, Mich.
Dallas Cotton Mills, Dallas, Texas.
Dallett Co., The, 165-189 W. Clearfield St., Philadelphia, Pa.
Darcoid Co., Inc., The, 200 Varick St., New York, N. Y.
Darling Valve & Mfg. Co., Williamsport, Pa.
Darnell Corporation, 3300 East 11th St., Long Beach, Calif.
Dart, E. M., Mfg. Co., 134 Thurbers Ave., Providence, R. I.
Davenport Garnet Co., South Danbury, N. H.
Davis Regulator Co., 2541 S. Washtenaw Ave., Chicago, Ill.
Davison Combustion Co., 2939 Smallman St., Pittsburgh, Pa.
Dayton Air Compressor Co., The, Valley and Air Sts., Dayton, Ohio.
Dayton Bronze Bearing Co., The, 303 Keowee St., Dayton, Ohio.
Dayton Rubber Mfg. Co., The, W. Riverview Ave., Dayton, Ohio.
Dayton Safety Ladder Co., 121-123 W. 3rd St., Cincinnati, Ohio.
Dean Brothers Co., 323 W. 10th St., Indianapolis, Ind.
Dean-Hill Pump Co., 23rd & St. Charles Sts., Anderson, Ind.
Decatur Pump Co., 2750 Nelson Park Rd., Decatur, Ill.
Degen-Fiege Belting Co., 326 East Third St., Los Angeles, Calif.
DeLaval Steam Turbine Co., Trenton, N. J.
DeLoach Mill Mfg. Co., Fort & Main Sts., Chattanooga, Tenn.
Delta File Works, 4837 James St., Philadelphia, Pa.
Delta Mfg. Co., 620 East Vienna Ave., Milwaukee, Wis.
Deming Co., The, Salem, Ohio.
Denison Cotton Mills, Denison, Texas.
Deshler Broom Factory, The, Deshler, Neb.
Desmond-Stephan Mfg. Co., 317 S. Walnut St., Urbana, Ohio.
Desolvo Manufacturing Co., 33 Terminal Way, Pittsburgh, Pa.
Detex Watchclock Corp., 4147 Ravenswood Ave., Chicago, Ill.
Detroit Belt Lacer Co., 3951 A St., Detroit, Mich.
Detroit Brass & Malleable Works, 100 S. Campbell Ave., Detroit, Mich.
Detroit Edge Tool Co., 433 Mt. Elliott Ave., Detroit, Mich.
Detroit Graphite Co., Detroit, Mich.
Detroit Hoist & Machine Co., 8203 Morrow St., Detroit, Mich.
Detroit Lubricator Co., 5842 Trumbull Ave., Detroit, Mich.
Detroit Metal Spinning Co., Inc., 625 Monroe Ave., Detroit, Mich.
Detroit Nut Co., Inc., 2456 Hubbard Ave., Detroit, Mich.
Detroit Oak Belting Co., 3362 Wight St., Detroit, Mich.
Detroit Stamping Co., 3445-61 W. Fort St., Detroit, Mich.
Detroit Torch & Manufacturing Co., 12057 Cardoni Ave., Detroit, Mich.
Deutz Motor Corp., 2902 Woolworth Bldg., New York, N. Y.
DeVilbiss Co., The, 300 Phillips Ave., Toledo, Ohio.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Diamond Chain and Mfg. Co., 403 Kentucky Ave., Indianapolis, Ind.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Diamond Iron Works, Inc., 1728 N. 2nd St., Minneapolis, Minn.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., 444 S. Main St., Akron, Ohio.
Diamond Saw and Stamping Works, 347 Davey St., Buffalo, N. Y.
Dick, R. & J., Co., Inc., Passaic, N. J.
Diehl Mfg. Co., Elizabethport, N. J.
Diemolding Corporation, Rasbach St., Canastota, N. Y.
Diener, Geo. W., Mfg. Co., 400-420 Monticello Ave., Chicago, Ill.
Dietz, R. E., Co., 60 Laight St., New York.
Dietzgen, Eugene Co., 2425 Sheffield Ave., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Divine Brothers Co., 102 Whitesboro St., Utica, N. Y.
Dixie Cotton Mills, La Grange, Ga.
Dixie Logging Tool Co., Greenwood & E. 13th St., Chattanooga, Tenn.
Dixon, Joseph, Crucible Co., Wayne & Monmouth Sts., Jersey City, N. J.
Dixon Valve & Coupling Co., Hancock St. & Columbia Ave., Philadelphia, Pa.
Dobbie Foundry & Machine Co., 150 Portage Road, Niagara Falls, N. Y.
Dobbins Core Drill Co., Inc., 5-43 48th Ave., Long Island City, N. Y.
Dockson, C. H., Co., 2885 East Grand Blvd., Detroit, Mich.
Dodge Manufacturing Corp., 501 So. Union St., Mishawaka, Ind.
Domestic Engine & Pump Co., Shippensburg, Pa.
Donnelley, R. R., & Sons Co., 350 E. 22nd St., Chicago, Ill.
Doolittle, L. G., 1 Sturges St., Binghamton, N. Y.
Dover Stamping & Mfg. Co., 385 Putnam Ave., Cambridge, Mass.
Downs, I. G., 620 Exchange Bldg., Denver, Colo.
Drake Elec. Works, 3654 Lincoln Ave., Chicago, Ill.
Dresser, S. R., Mfg. Co., 41 Fisher Ave., Bradford, Pa.
Drew, C., & Co., Kingston, Mass.
Driscoll Drive Corp., 258 Broadway, New York, N. Y.
Dudgeon, Richard, Inc., 24-26 Columbia St., New York, N. Y.
Duff-Norton Mfg. Co., The, P. O. Box 1889 Pittsburgh, Pa.
Dumore Co., The, 14th and Racine St. (Dept. M. S.), Racine, Wis.
Dunson Mills, Dunson, Ga.
Dunton, M. W., Co., The, 670 Eddy St., Providence, R. I.
Du Pont De Nemours, E. I., & Co., Du Pont Bldg., Wilmington, Del. (Finishes Div.)
Durabilt Steel Locker Co., 541 Arnold Ave., Aurora, Ill.
Durabla Manufacturing Co., 114 Liberty St., New York, N. Y.
Durant Mfg. Co., 1925-1929 N. Buffum St., Milwaukee, Wis.
Duryea Products Co., 117 Liberty St., New York, N. Y.

E

Eagle Belting Co., 108 N. Jefferson St., Chicago, Ill.
Eagle Counter & Leather Co., The, Freeman & Hubert Ave., Cincinnati, Ohio.
Eagle Lock Co., 26 Warren St., New York.
Eagle Manufacturing Co., 24th & Charles Sts., Wellsburg, W. Va.
Eagle-Picher Lead Co., The, 134 N. LaSalle St., Chicago, Ill.
Eagle Saw Co., Rossville Blvd., Chattanooga, Tenn.
Earle Gear & Machine Co., The, 4707-15 Stenton Ave., Philadelphia, Pa.
Eaton Manufacturing Co., (Reliance Spring Washer Division), Massillon, Ohio.
Eberhard Mfg. Co., 2734 Tennyson Rd., Cleveland, Ohio.
Economy Baler Co., Ann Arbor, Mich.
Economy Electric Lantern Co., Inc., 325 W. Huron St., Chicago, Ill.
Economy Machine Products Co., 5210 Lawrence Ave., Chicago, Ill.
Economy Manufacturing Co., 5350 Germantown Ave., Philadelphia, Pa.
Economy Pumping Machinery Co., 3431 W. 48th Place, Chicago, Ill.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Edgemont Machine Co., The, 2200 Home Ave., Dayton, O.
Edna Brass Mfg. Co., The, 533 Reading Rd., Cincinnati, Ohio.
Edward Valve & Mfg. Co., The, 1200 W. 145th St., East Chicago, Ind.
Edwards, E. H., 225 Bush St., San Francisco, Cal.
Edwards, H. D., & Co., 175 E. Larned St., Detroit, Mich.
Edwards Manufacturing Co., The, 517-547 Eggleston Ave., Cincinnati, Ohio.
Efficiency Engineering Co., 17 Montrose St., Boston, 19, Mass.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eiermann Floor Scraper Co., The, 1971 Fulton St., Brooklyn, N. Y.
Eisler Engineering Co., 750 S. 13th St., Newark, N. J.
Elco Tool & Screw Corp., 1902 Broadway, Rockford, Ill.
Elder & Jenks, 411-419 Vine St., Philadelphia, Pa.
Electric Air Heater Co., Div., American Foundry Equipment Co., 700 Byrkit St., Mishawaka, Ind.
Electric Blower Co., 352 Atlantic Ave., Boston, Mass.
Electric Hose & Rubber Co., 12th & Dure Sts., Wilmington, Del.
Electric Soldering Iron Co., Inc., 342 W. 14th St., New York, N. Y.
Electric Sprayit Co., The, 220 North Broadway, Milwaukee, Wis.
Electric Torch Mfg. Co., Oakland, Calif.
Electric Vacuum Cleaner Co., Inc., 1734 Ivanhoe Rd., Cleveland, Ohio.
Electric Wheel Co., Quincy, Ill.
Electro Engineering Co., Inc., 11712 Atlantic Ave., Richmond Hill, New York.
Elkhart Brass Mfg. Co., 1302 W. Beardsley Ave., Elkhart, Ind.
Elkhart Foundry & Machine Co., South Elkhart Ave., Elkhart, Ind.
Elkhart Iron Works, 2000 S. Main St., Elkhart, Ind.
Elkhart Rubber Works, 1714 13th St., Elkhart, Ind.
Ellis & Ford Mfg. Co., 38 Piquette Ave., Detroit, Mich.
Elwell-Parker Electric Co., The, 4208 St. Clair Ave., Cleveland, Ohio.
Embury Mfg. Co., Warsaw, N. Y.
Emerson Electric Mfg. Co., The, 2012-32 Washington Ave., St. Louis, Mo.
Emmert Mfg. Co., W. Main St., Waynesboro, Pa.
Empire Brass Co., The, 10301-11 Berea Road, Cleveland, Ohio.
Empire Level Manufacturing Co., 717 S. 6th St., Milwaukee, Wis.
Empire Machine Works, Lackawanna Ave Mt. Morris, N. Y.
Empire Manufacturing Co., Schott Building, Quincy, Ill.
Enderes, Son & Co., Inc., Guttenberg, Iowa.
Endura Mfg. Corp., 45 N. Fourth St., Quakertown, Pa.
Ensign Products Co., 10703 Quebec Ave., Cleveland, Ohio.
Equinox Mills, Anderson, S. C.
Erie Tool Works, The, 11th & French Sts., Erie, Pa.
Essex Brass Corp., 2000 Franklin St., Detroit, Mich.

Estwing Mfg. Co., Harrison Ave. & 8th St., Rockford, Ill.
Ettco Tool Co., 594 Johnson Ave., Brooklyn, N. Y.
Euclid-Armington Corp., Euclid, Ohio.
Euclid Rubber Co., 19730 Tyronne Ave., Cleveland, Ohio.
Eureka Packing Co. and Braiding and Packing Works of America, Inc., 250 46th St., Brooklyn, N. Y.
Evansville Leather & Belting Co., 431 Sycamore St., Evansville, Ind.
Evansville Tool Works, Inc., 9th & Maryland St., Evansville, Ind.
Even-Cut Abrasive Band Co., 8212 Carnegie Ave., Cleveland, Ohio.
Ever-Nu Fuse Co., 919 N. Latrobe Ave., Chicago, Ill.
Everhot Mfg. Co., 619 S. 10th Ave., Maywood, Ill.
Everitt Co., The, 261 Franklin St., Boston.
Everlasting Valve Co., 49 Fisk St., Jersey City, N. J.
Excel Asbestos Mfg. Co., 403-405 South Ave., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., 720-730 Chestnut St., Rockford, Ill.
Excelsior Plimptruck Co., The, 796 Atlantic St., Stamford, Conn.
Excelsior Tool & Machine Co., 31st St. & Ridge Ave., East St. Louis, Ill.
Exolon Co., The, Commercial Ave., & E. R. R., Blasdell, N. Y.

F

F.A.B. Manufacturing Co., Oakland, Calif.
Fabreeka Products Co., 222 Summer St., Boston, Mass.
Fabricated Steel Products Co., The, Benwood, Wheeling, W. Va.
Fafnir Bearing Co., The, New Britain, Conn.
Fairbanks Co., The, 19 East 4th St., New York, N. Y.
Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, Ill.
Fairfield Engineering Co., The, Barnhart St., Marion, Ohio.
Falk Corp., The, Foot of 30th St., Milwaukee, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Falls Co., Winchendon, Mass.
Farnan Brass Works Co., The, 1104 Center St., Cleveland, Ohio.
Farquahar, A. B., Co., Ltd., 145 North Duke, York, Pa.
Farrel-Birmingham Co., Inc., 75 Main St., Ansonia, Conn.
Faultless Caster Corp., 1521 N. Garvin St., Evansville, Ind.
Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Federal Electric Co., Inc., 8720 S. State St., Chicago, Ill.
Federal Metallic Packing Co., 29-99 Foundry St., Wakefield, Mass.
Federal Press Co., 511 Division St., Elkhart, Ind.
Federal Products Corp., 1144 Eddy St., Providence, R. I.
Federal Screw Works, 3401 Martin Ave., Detroit, Mich.
Federated Metals Corp., 120 Broadway, New York, N. Y.
Fee & Mason Mfg. Co., Inc., 81 Beekman St., New York, N. Y.
Felt Products Co., 1504-14 Carroll Ave., Chicago, Ill.
Fenwick-Reddaway Mfg. Co., 46 Paris St., Newark, N. J.
Ferodo & Asbestos, Inc., New Brunswick, N. J.
Ferry Cap & Set Screw Co., 2151 Scranton Rd., Cleveland, Ohio.
Fibre Specialty Mfg. Co., Division National Vulcanized Fibre Co., Kennett Square, Pa.
Field, R. B., & Co., 10 Clarence St., Worcester, Mass.
Filer & Stowell Co., The, 219 Beecher St., Milwaukee, Wis.
Finn, John, Metal Works, 384 Second St., San Francisco, Calif.
Fisher Governor Co., The, Marshalltown, Iowa.
Fiske Brothers Refining Co., Lubriplate Division, 24 State St., New York, N. Y.
Fitchburg Cotton Mills, Fitchburg, Mass.
Fitler, Edwin H., Co., The, 517 Arch St., Philadelphia, Pa.
Fitz Water Wheel Co., P. O. Box 308, Hanover, Pa.
Fitzgerald Cotton Mills, Fitzgerald, Ga.
Flannery Bolt Co., 3528 Forbes St., Pittsburgh, Pa.
Flash Chemical Co., 160 2nd St., Cambridge, Mass.
Fletcher-Terry Co., The, Forestville, Conn.
Flexible Shafts, Inc., State & Shear Sts., Binghamton, N. Y.
Flexible Steel Lacing Co., 4633 Lexington St., Chicago, Ill.
Flexitallic Gasket Co., 924 N. 8th St., Camden, N. J.
Flexrock Co., 800 N. Delaware Ave., Philadelphia, Pa.
Foley Mfg. Co., 46 Main St., N. E., Minneapolis, Minn.
Foote Bros. Gear & Machine Co., 5301 S. Western Ave., Chicago, Ill.
Foote Gear Works, Inc., 1307-9 S. Cicero Ave., Cicero, Ill.
Forbes & Myers, 172 Union St., Worcester, Mass.
Ford, J. B., Co., The, Wyandotte, Mich.
Ford, M. A., Mfg. Co., 402 Pershing Ave., Davenport, Iowa.
Ford Chain Block Co., 2101 N. Second St., Philadelphia, Pa.
Ford Regulator Valve Co., Inc., 407 Broome St., New York, N. Y.
Ford's Porcelain Works, Lehigh Ave. & Stockton St., Perth Amboy, N. J.
Forest City Bit & Tool Co., 1206 Kishwaukee St., Rockford, Ill.
Forged Steel Products Co., South 5th St., Newport, Pa.
Forsberg Mfg. Co., The, 125 Seaview Ave., Bridgeport, Conn.
Ft. Wayne Engineering & Mfg. Co., 6th & Harrison St., Ft. Wayne, Ind.
Foster Engineering Co., 109A Monroe St., Newark, N. J.
Foster-Johnson Reamer Co., Beardsley Ave., Elkhart, Ind.
Foxboro Co., The, Neponset Ave., Foxboro, Mass.
Fraim, E. T., Lock Co., 237 Park Ave., Lancaster, Pa.
France Packing Co., The, Tacony, Philadelphia, Pa.
Franklin Cotton Mill Co., The, 1114 Central Parkway, Cincinnati, Ohio.
Franklin Oil & Gas Co., The, Bedford, O.
Frasse, Peter A., & Co., Inc., 17 Grand St., New York, N. Y.
Frederick Iron & Steel Co., The, E. 7th St., Frederick, Md.
Fredericksen Co., 831 S. Water St., Saginaw, Mich.
Fretz-Moon Tube Co., Inc., East Butler, Pa.
Frey Tanning Co., 238 S. Water St., Lancaster, Pa.
Frick-Reid Supply Corp., 117 Sandusky St., N. S., Pittsburgh, Pa.
Frictionless Metal Co., 1458-60 Collins St., St. Louis, Mo.
Fridy Hoist & Machinery Co., Mountville, Pa.
Friedrich & Dimmock, Suite 909, 7 East 42nd St., New York, N. Y.
Fulton Bag & Cotton Mills, Atlanta, Ga.
Furnas Electric Co., 811 So. 72nd St., West Allis, Wis.

G

G. D. S. Shearing & Punching Machine Co., Inc., 101 Walker St., New York, N. Y.
G. M. Laboratories, Inc., 1735 Belmont Ave., Chicago, Ill.
Gairing Tool Co., The, 1629-1637 Lafayette Blvd., Detroit, Mich.
Galland-Henning Manufacturing Co., 2753 S. 31st St., Milwaukee, Wis.
Gallup-Ruffing Handle Co., The, Norwalk, Ohio.
Gammons-Holman Co., The, Manchester, Conn.
Gandy Belting Co., Grand Rapids, Mich.
Garden City Fan Co., 332 S. Michigan Ave., Chicago, Ill.
Garden City Laboratory, Inc., 550 W. Roosevelt Rd., Chicago, Ill.
Gardiner Metal Co., 4833 S. Campbell Ave., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
Garlock Packing Co., The, 50 Main St., Palmyra, N. Y.
Garrison Engineering Corp., Great Barrington, Mass.
Garwood Bronze & Iron Works, Garwood, N. J.
Gary, James S., & Son, 204 American Bldg., Baltimore, Md.
Gast Mfg. Co., The, Bridgman, Mich.
Gates Rubber Co., The, 999 S. Broadway, Denver, Colo.
Gem Manufacturing Co., 1229-1243 Goebel St., Pittsburgh, Pa.
General Abrasive Co., Inc., 2020 College Ave., Niagara Falls, N. Y.
General Asbestos & Rubber Division of Raybestos - Manhattan, Inc., North Charleston, S. C.
General Brass Co., 100 S. Campbell Ave., Detroit, Mich.
General Chemical Co., 300 W. Adams St., Chicago, Ill.
General Electric Co., River Road, Schenectady, N. Y.
General Electric Co., Incandescent Lamp Dept., Nela Park, Cleveland, Ohio.
General Electric Co., Merchandise Dept., Bridgeport, Conn.
General Fibre Co., Union & Lumber Sts., Chicago, Ill.
General Refractories Co., 1600 Real Estate Trust Building, Philadelphia, Pa.
General Wheelbarrow Co., The, 3140 E. 65th St., Cleveland, Ohio.
Geometric Tool Co., The, Blake & Valley Sts., New Haven, Conn.
Gerard Mfg. Co., 729 Main St., Dickson City, Pa.
Gerstner, H., & Sons, 25-31 Columbia St., Dayton, Ohio.
Gerts, Lumbard & Co., 2100 Grand Ave., Chicago, Ill.
Geuder, Paeschke & Frey Co., 15th St. & St. Paul Ave., Milwaukee, Wis.
Giant Grip Mfg. Co., 29 Osceola St., Oshkosh, Wis.
Giant Mfg. Co., Council Bluffs, Iowa.
Gilmer, L. H., Co., Keystone & Cottman Sts., Philadelphia, Pa.
Gilson Slide Rule Co., Stuart, Fla.
Gisholt Machine Co., 1305 E. Washington Ave., Madison, Wis.
Gits Bros. Mfg. Co., 1846-1862 S. Kilbourn Ave., Chicago, Ill.
Glacier Metal Co., P. O. Box 337, Richmond, Va.
Glamorgan Pipe & Foundry Co., Adams St., Lynchburg, Va.
Glenzer, J. C., Co., The, 6463 Epworth Blvd., Detroit, Mich.
Globe Kneadable Metallic Packing Co., Inc. 1767 W. 10th St., Brooklyn, N. Y.
Globe Machine & Stamping Co., The, 1260 W. 76th St., Cleveland, Ohio.
Globe Steel Abrasive Co., The, 1st Ave., Mansfield, Ohio.
Globe Steel Tubes Co., 3839 W. Burnham St., Milwaukee, Wis.
Globe Woven Belting Co., Inc., 1396-1400 Clinton St., Buffalo, N. Y.
Glover, Manson, Stoughton, Mass.
Godfrey Conveyor Co., Wolf Ave., Elkhart, Ind.
Goetze Gasket & Packing Co., Inc., 26 Allen Ave., New Brunswick, N. J.
Goheen Corp. of New Jersey, Emmett & Goble Sts., Newark, N. J.
Gonzales Cotton Mill Co., Gonzales, Texas.
Goodall Rubber Co., 5 S. 36th St., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., 165 W. Columbia Ave., Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., 57 Wells St., Greenfield, Mass.
Goodell, Zina, Corp., 86-92 Lafayette St., Salem, Mass.
Goodrich, B. F., Co., The, 400 S. Main St., Akron, Ohio.
Goodrich Grinding Wheel Co., 1500 W. Madison St., Chicago, Ill.
Goodsell Packing Co., Algonquin, Ill.
Goodyear Tire & Rubber Co., Inc., The, 1144 East Market St., Akron, Ohio.
Gorton Heating Corp., Cranford, N. J.
Goshen Manufacturing Co., The, 10th & Reynolds Sts., Goshen, Ind.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Grabler Mfg. Co., 6565 Broadway, Cleveland, Ohio.
Grady Mfg. Co., The, 250-62 Ely Ave., Long Island City, N. Y.
Grancell, I. H., 2905 E. 1st St., Los Angeles, Calif.
Grand Rapids Vapor Kiln, Inc., 40 Market Ave., N. W., Grand Rapids, Mich.
Graton & Knight Co., 356 Franklin St., Worcester, Mass.
Gray & Prior Machine Co., The, 614 Windsor St., Hartford, Conn.
Great Neck Saw Mfrs., Inc., Great Neck, L. I., N. Y.
Green, A. P., Fire Brick Co., Mexico, Mo.
Greene, Tweed & Co., 109 Duane St., New York, N. Y.
Greenfield Tap & Die Corp., Sanderson St., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Grinnell Co., Inc., 260 W. Exchange St., Providence, R. I.
Gripwell Mfg. Co., 105 West 40th St., New York, N. Y.
Grobet File Corp. of America, 3 Park Pl., New York, N. Y.
Gross Rubber Co., 146-148 E. State, Sharon, Pa.
Guadalupe Valley Cotton Mills, Cuero, Texas.
Gundlach, T. J., Machine Co., 408 E. Main St., Belleville, Ill.
Gurley, W. & L. E., 514 Fulton St., Troy, N. Y.
Gustafson & Scott Mfg. Co., 1637 Lowell Ave., Chicago, Ill.

H

H-B Instrument Co., Inc., 2518 North Broad St., Philadelphia, Pa.
Haddon Bin Label Co., 206 W. Atlantic Ave., Haddon Heights, N. J.
Hallanger Industrial Oiler Div. of Davis Tool & Engineering Co., 6481 Epworth Blvd., Detroit, Mich.
Hamburg Broom Works, Hamburg, Pa.
Hamilton Caster & Mfg. Co., The, 1637 Dixie Highway, Hamilton, Ohio.
Hamilton Rubber Mfg. Co., Mead St., Trenton, N. J.
Hammel, Riglander & Co., Inc., 209 West 14th St., New York, N. Y.
Hancock Valve Div., Consolidated Ashcroft Hancock Co., Inc., 11 Elias St., Bridgeport, Conn.
Handlan-Buck Mfg. Co., 212 N. 3rd St., St. Louis, Mo.
Handley, W. A., Mfg. Co., Roanoke, Ala.
Handy & Harmon, 82 Fulton St., New York, N. Y.

Hannifin Mfg. Co., 621 S. Kolmar Ave., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Harker Mfg. Co., 121-123 W. 3rd St., Cincinnati, Ohio.
Harnischfeger Corp., 4538 W. National Ave., Milwaukee, Wis.
Harper, H. M., Co., 2622 Fletcher St., Chicago, Ill.
Harrington Co., The, 17th & Callowhill Sts., Philadelphia, Pa.
Harrington & King Perforating Co., The, 5655 Fillmore St., Chicago, Ill.
Harris, Arthur, & Co., 212-218 Curtis St., Chicago, Ill.
Harris, A. W., Oil Co., 326 S. Water St., Providence, R. I.
Harris Calorific Co., The, 5501 Cass Ave., N. W., Cleveland, Ohio.
Harris & Reed Mfg. Co., 1510 W. 15th St., Chicago, Ill.
Harrisburg Stamping Co., Harrisburg, Pa.
Harrisburg Steel Corp., Harrisburg, Pa.
Harrison & Co., 490 Groveland St., Haverhill, Mass.
Hart, R. E., Mfg. Co., 225 Ward Bldg., Battle Creek, Mich.
Hartford Machine Screw Co., 476 Capitol Ave., Hartford, Conn.
Hartz, H. V., Co., The, Cuyahoga & Mahoning Aves., Cleveland, Ohio.
Hartzell Propeller Fan Co., Piqua, Ohio.
Haskell, Wm. H., Manufacturing Co., 24 Commerce St., Pawtucket, R. I.
Haskins, R. G., Co., 4627 W. Fulton St., Chicago, Ill.
Hauck Manufacturing Co., 126-134 10th St., Brooklyn, N. Y.
Hauserman, E. F., Co., The, 6800 Grant Ave., Cleveland, Ohio.
Havana Mfg. Co., 112 N. Pear St., Havana, Ill.
Hawes Manufacturing Co., Inc., 113 Hudson St., Jersey City, N. J.
Haydenville Co., The, Haydenville, Mass.
Hayes File Co., 1981 Franklin St., Detroit, Mich.
Hays Manufacturing Co., 12th & Liberty Sts., Erie, Pa.
Hazard Wire Rope Co., 81 E. Ross St., Wilkes-Barre, Pa.
Heinisch, R., Sons Works, 42 S. 6th St., Newark, N. J.
Heinn Co., 326 Florida St., Milwaukee, Wis.
Heintze, James C., & Co., 3738 W. 143rd St., Cleveland, Ohio.
Heiz & Heiz, Inc., 33 34th St., Brooklyn, N. Y.
Hellenberg, J. B., Co., Inc., The, Clark & Jefferson Sts., Coldwater, Mich.
Heller Bros. Co., 865 Mt. Prospect Ave., Newark, N. J.
Heller, W. C., & Co., Montpelier, Ohio.
Helmer & Staley, 2446 S. Parkway, Chicago, Ill.
Henderer's, A. L., Sons, Md. Ave. and Beech St., Wilmington, Del.
Hennebohle, Frank, 81st St. & S. Chicago Ave., Chicago, Ill.
Henry & Allen, Inc., 2-36 Wadsworth St., Auburn, N. Y.
Hercules Chemical Co., Inc., 332 Canal St., New York, N. Y.
Hercules Powder Co., Inc., 900 Market St., Wilmington, Del.
Hergi Mfg. Co., The, 250 5th St., Bridgeport, Conn.
Hermance Machine Co., 178 Campbell St., Williamsport, Pa.
Hersey Manufacturing Co., E. and 2nd Sts., South Boston Station, Boston, Mass.
Heston & Anderson, 1072 Grant Ave., Fairfield, Iowa.
Hettrick Mfg. Co., The, Summit at Magnolia, Toledo, Ohio.
Hewitt Metals Corp., 5723 12th St., Detroit, Mich.
Hewitt Rubber Corp., 240 Kensington Ave., Buffalo, N. Y.
Hettrick, W. E., & Son, Inc., 1301 Prouty Ave., Toledo, Ohio.
Hexacon Electric Appliance Corp., 161-163 W. Clay Ave., Roselle Park, N. J.
Highland Electro Chemical Mfg. Co., Connellsville, Pa.
Highland Iron and Steel Co., The, Terre Haute, Ind.
Hill Clutch Machine & Foundry Co., The, 6400 Breakwater Ave., Cleveland, Ohio.
Hill-Diesel Engine Co., Lansing, Mich.
Hilliard Corp., The, 102 W. 4th St., Elmira, N. Y.
Hills McCanna Corp., 2349 Nelson St., Chicago, Ill.
Hillsboro Cotton Mill, Hillsboro, Texas.
Hillwood Mfg. Co., The, 21700 St. Clair Ave., Cleveland, Ohio.
Himmelein & Bailey, Inc., 1300 Walnut St., Camden, N. J.
Hinds & Coon Co., 116-118 Pearl St., Boston, Mass.
Hinman, D. A., & Co., Inc., 103 S. Main St., Sandwich, Ill.
Hinsdale Manufacturing Co., 427 W. Randolph St., Chicago, Ill.
Hisey-Wolf Machine Co., Colerain & Marshall Aves., Cincinnati, Ohio.
Hjorth Lathe and Tool Co., 12 Beacon St., Woburn, Mass.
Hobart Bros. Co., W. Main St., Troy, Ohio.
Hobbs, Clinton, E., Co., 203 Chelsea St., Everett Branch, Boston, Mass.
Hobbs Manufacturing Co., 26 Salisbury St., Worcester, Mass.
Hodell Chain Co., The, 3924 Cooper Ave., Cleveland, Ohio.
Hoe, R., and Co., Inc., 138th and E. River Sts., Bronx, New York, N. Y.
Hoffeld, R., & Co., 61-69 Carroll St., Buffalo, N. Y.
Hoffman Specialty Co., Inc., 193 Grand St., Waterbury, Conn.
Hoggson & Pettis Mfg. Co., The, 141 Brewery St., New Haven, Conn.
Holcomb, A. L., 15 Market Ave., N. W., Grand Rapids, Mich.
Holcomb Safety Garment Co., 128 N. Jefferson St., Chicago, Ill.
Hollands Mfg. Co., 342-352 E. 18th St., Erie, Pa.
Hollow Center Packing Co., 6523 Euclid Ave., Cleveland, Ohio.
Holmberg Steam Trap Co., The, 122 E. Lincoln St., Lindsborg, Kansas.
Holo-Krome Screw Corp., The, Brook St., Elmwood, Hartford, Conn.
Holyoke Belting Co., 66-68 Winter St., Holyoke, Mass.
Home Rubber Co., Trenton, N. J.
Homestead Valve Mfg. Co., P. O. Box H, Coraopolis, Pa.
Hones, Charles A., Inc., 121 S. Grand Ave., Baldwin, N. Y.
Hooper, Wm. E., & Sons Co., 3502 Parkdale Ave., Baltimore, Md.
Hoosier Broom Manufacturing Co., 2224 Bethel Ave., Indianapolis, Ind.
Hooven & Allison Co., The, Xenia, Ohio.
Hoover Ball and Bearing Co., Ann Arbor, Mich.
Horn, A. C., Co., 43-44 Tenth St., Long Island City, N. Y.
Horsburgh & Scott Co., The, 5115 Hamilton Ave., Cleveland, Ohio.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Hubbard & Co., 6301 Butler St., Pittsburgh.
Hubbell, Harvey, Inc., State St. & Bostwick Ave., Bridgeport, Conn.
Hudson, H. D., Manufacturing Co., 589 E. Illinois St., Chicago, Ill.
Huffman Manufacturing Co., The, P. O. Box 1036, Dayton, Ohio.
Huhn Manufacturing Co., 1391 Sedgwick Ave., Bronx, New York, N. Y.
Humphrey, H. W., Unionville, Conn.
Hunt, C. B., & Son, 1913 E. State St., Salem, Ohio.
Hunt, Geo. L., Mfg. Co., Inc., 1030 Wisconsin Ave., Boscobel, Wis.
Hunt, H. W., Co., 47 Pleasant St., Reading, Mass.
Hunter Pressed Steel Co., Pierce & Linden Sts., Lansdale, Pa.
Huot Mfg. Co., 128 E. 10th St., St. Paul, Minn.
Huron Industries, Inc., Alpena, Mich.
Huyette, Paul B., Co., Inc., 401 N. Broad St., Philadelphia, Pa.
Hyatt Roller Bearing Co., P. O. Box 476, Newark, N. J.
Hydraulic Press Mfg. Co., The, 50 Lincoln Ave., Mount Gilead, Ohio.
Hygeia Respirator Co., 129 East 85th St., New York, N. Y.
Hygrade Sylvania Corp., 60 Boston St., Salem, Mass.

I

Ideal Commutator Dresser Co., 1020 Park Ave., Sycamore, Ill.
Ideal Face Shield Co., The, 468 N. Garfield Ave., Columbus, Ohio.
Ilg Electric Ventilating Co., 2850 N. Crawford Ave., Chicago, Ill.
Illinois Gear & Machine Co., 2108 N. Natchez Ave., Chicago, Ill.
Illinois Iron & Bolt Co., 10 Main St., Carpentersville, Ill.
Illinois Malleable Iron Co., 1801 Diversey Parkway, Chicago, Ill.
Illinois Mechanical Leather Co., 1720 N. Winchester Ave., Chicago, Ill.
Illinois Testing Laboratories, Inc., 420 N. LaSalle St., Chicago, Ill.
Illinois Tool Works, 2501 N. Keeler Ave., Chicago, Ill.
Imperial Belting Co., 1750-1800 S. Kilbourn Ave., Chicago, Ill.
Imperial Brass Manufacturing Co., 511 S. Racine Ave., Chicago, Ill.
Imperial Floor Co., Inc., 59 Halstead St., Rochester, N. Y.
Independent Pneumatic Tool Co., 600 W. Jackson Blvd., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., 126 Brush St., Indianapolis, Ind.
Industrial Brownhoist Corp., 4403 St. Clair Ave., Cleveland, Ohio.
Industrial Gloves Corp., 700 Garfield Blvd., Danville, Ill.
Ingalls Iron Works Co., The, 720 4th Ave., S., Birmingham, Ala.
Ingersoll Milling Machine Co., The, 2420 Douglas St., Rockford, Ill.
Ingersoll-Rand Co., 11 Broadway, New York, N. Y.
Ingersoll Steel & Disc Co., West Broad St., Newcastle, Ind.
Inland Steel Co., 38 S. Dearborn St., Chicago, Ill.
Instantaneous Glue Converter Co., 3752 Montgomery Ave., Cincinnati, Ohio.
Interlocking Products Co., 545 Fifth Ave., New York, N. Y.
International Chain & Mfg. Co., York, Pa.
International Clay Machinery Co., 1057 Bolander Ave., Dayton, Ohio.
International Nickel Co., Inc., The, 67 Wall St., New York, N. Y.
International Nutyp Tool Corp., Oswego, N. Y.
Ireson, Charles L., Co., 20 South St., Philadelphia, Pa.
Irwin Auger Bit Co., Wilmington, Ohio.
Itasca Cotton Mfg. Co., Itasca, Texas.
Ivins, Ellwood, Steel Tube Works, Inc., Coventry Aves. & Valley Rd., Oak Lane Station, Philadelphia, Pa.
Iwan Brothers, 1503 Prairie Ave., South Bend, Ind.

J

JKL Manufacturing Co., 1120 11th Ave., Rockford, Ill.
Jackson, Byron Co., 2150 E. Slauson St., Los Angeles, Calif.
Jackson, Isaac, Belt Fastener Co., Inc., 18 Vesey St., New York, N. Y.
Jackson Manufacturing Co., Magnolia St. & P. R. R., Harrisburg, Pa.
Jacobs Manufacturing Co., The, 2076 Park St., Hartford, Conn.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
Jaeger Machine Co., The, 550 W. Spring St., Columbus, Ohio.
Janos Asbestos Co., 26 Cortlandt St., New York, N. Y.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Jay Tee Tool Sales Co., 4900 Euclid Ave., Cleveland, Ohio.
Jefferson Electric Co., Bellwood, Ill.
Jefferson Union Co., Lexington, Mass.
Jeffrey Manufacturing Co., The, 930-99 N. Fourth St., Columbus, Ohio.
Jeffrey-Traylor Division of The Jeffrey Manufacturing Co., Columbus, Ohio.
Jenkins Bros., 80 White St., New York.
Jerry Bros. Belting Co., 1908 E. Main St., Richmond, Va.
Jewel Incandescent Lamp Co., 900 Passaic Ave., E. Newark, N. J.
Jewell Belt Hook Co., 112 Bridge St., Naugatuck, Conn.
Jewett Refrigerator Co., Inc., The, 2 Letchworth St., Buffalo, N. Y.
Jiffy Fire Hose Rack Co., 133 W. 52nd St., New York, N. Y.
Jobbers Mfg. Co., 7 S. Dearborn St., Chicago, Ill.
Johns-Manville, 22 East 40th St., New York, N. Y.
Johnson Belting Co., 34-44 Hubert St., New York, N. Y.
Johnson Bronze Co., 500-600 S. Mill St., New Castle, Pa.
Johnson, Carlyle, Machine Co., The, 52 Main St., Manchester, Conn.
Johnson, E. P., Rule Mfg. Co., 565 W. Washington Blvd., Chicago, Ill.
Johnson, William, Inc., Kent & Brenner Sts., Newark, N. J.
Johnson Manufacturing Co., Seattle, Wash.
Johnson Mfg. Co., 729 W. Washington Blvd., Chicago, Ill.
Johnston & Chapman Co., 2925 Carroll Ave., Chicago, Ill.
Jones, H. H., Lancaster, N. H.
Jones & Laughlin Steel Corp., 3rd Ave., & Ross St., Pittsburgh, Pa.
Jones Superior Machine Co., 1264 W. North Ave., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., 4401 Roosevelt Rd., Chicago, Ill.
Jordan Brothers, Inc., 74 Beekman St., New York, N. Y.
Joslin, A. D., Mfg. Co., Manistee, Mich.
Joyce-Cridland Co., The, 329 Linden Ave., Dayton, Ohio.
Judson Governor Co., The, 20-38 Brown's Race, Rochester, N. Y.
Justrite Manufacturing Co., 2083 Southport Ave., Chicago, Ill.
Justus Steam Trap Co., Napanoch, N. Y.

K

K-D Manufacturing Co., Lancaster, Pa.
K-G Welding & Cutting Co., Inc., 515 W. 29th St., New York, N. Y.
Kaalot Mfg. Co., The, 3927 N. Kedzie Ave., Chicago, Ill.
Kahlenberg Bros., Two Rivers, Wis.
Kalamazoo Railway Supply Co., 1827 Reed St., Kalamazoo, Mich.
Kant Slip Mfg. Co., 451 E. 63rd St., Chicago, Ill.
Karelsen, E., Inc., 15 W. 44th St., New York, N. Y.
Kaye & MacDonald, Inc., 96 Franklin Ave., West Orange, N. J.

Keasbey & Mattison Co., Ambler, Pa.
Keating, E. F., Co., 452 Water St., New York, N. Y.
Keckley O. C., Co., 565 Washington Blvd., Chicago, Ill.
Keeler Brass Co., Grand Rapids, Mich.
Keller Glove Mfg. Co., Plumsteadville, Pa.
Kelley, R. A., Co., The, W. Market St., Xenia, Ohio.
Kellogg Manufacturing Co., 97 Humboldt St., Rochester, N. Y.
Kellogg Products Co., 120 Liberty St., New York, N. Y.
Kelly Machinery Co., 2524 W. Madison St., Chicago, Ill.
Kelly Reamer Co., 3705 W. 73rd St., Cleveland, Ohio.
Kempton Mfg. Corp., The, 148 W. 23rd St., New York, N. Y.
Kendallville Brush & Broom Co., P. O. Box 187, Kendallville, Ind.
Kennedy Manufacturing Co., 200 N. Harrison St., Van Wert, Ohio.
Kennedy Valve Mfg. Co., E. Water St., Elmira, N. Y.
Kerotest Mfg. Co., 2525 Liberty Ave., Pittsburgh, Pa.
Kester Solder Co., 4201 Wrightwood Ave., Chicago, Ill.
Keuffel & Esser Co., Adams & 3rd Sts., Hoboken, N. J.
Key Co., 2621 McCosland Ave., East St. Louis, Ill.
Keystone Belting Co., 213 N. 3rd St., Philadelphia, Pa.
Keystone Boiler & Foundry Co., Landisville, Pa.
Keystone Brass & Rubber Co., 811 Chestnut St., Philadelphia, Pa.
Keystone Emery Mills, 4321 Paul St., Philadelphia, Pa.
Keystone-Hindley Gear Co., 20th St. & Indiana Ave., Philadelphia, Pa.
Keystone Lubricating Co., 21st & Clearfield Sts., Philadelphia, Pa.
Keystone Mfg. Co., 41-61 Chandler St., Buffalo, N. Y.
Keystone Reamer & Tool Co., Millersburg, Pa.
Keystone Refractories Co., 120 Liberty St., New York, N. Y.
Kidd Drawn Steel Co., Alliquippa, Pa.
Kidde, Walter, & Co., Inc., 60 West St., Bloomfield, N. J.
Kidder, J. F., Mfg. Co., Inc., 426 Colchester Ave., Burlington, Vt.
Kieley & Mueller, Inc., 34 W. 13th St., New York, N. Y.
Kimball, C. M., Co., Chemical Lane, Everett, Mass.
Kimble Electric Co., 2011 Hastings St., Chicago, Ill.
King Union Co., Inc., Hillsgrove, R. I.
Kingston-Conley Electric Co., 68 Brook Ave., North Plainfield, N. J.
Kinney Manufacturing Co., 3547 Washington St., Boston, 30, Mass.
Klein, M., & Son, 3200 Belmont Ave., Chicago, Ill.
Klein-Logan Co., The, 13th & Breed St., Pittsburgh, Pa.
Kleinman, Russell F., 5317 N. Second St., Philadelphia, Pa.
Klingerit, Inc., 16-22 Hudson St., New York, N. Y.
Klipfel Manufacturing Co., 2641-59 W. Harrison St., Chicago, Ill.
Knight, H. W., & Son, Seneca Falls, N. Y.
Knight & Thomas, Inc., 212 Summer St., Boston, Mass.
Knight, W. B., Machinery Co., 3920 W. Pine Blvd., St. Louis, Mo.
Knox Mfg. Co., 819 Cherry St., Philadelphia, Pa.
Koppers Products Co., Koppers Bldg., Pittsburgh, Pa.
Kova Brush & Broom Mfg. Co., 7th & Anderson Sts., Greensburg, Ind.
Kraeuter & Co., Inc., 585 Eighteenth Ave., Newark, N. J.
Kron Co., The, 1720 Fairfield Ave., Bridgeport, Conn.
Kuhns Brothers Co., 1800 McCall St., Dayton, Ohio.
Kulp Electric Co., 20 N. Wacker Dr., Chicago, Ill.
Kupferle, John C., Foundry Co., 2822 N. Main St., St. Louis, Mo.

L

LaFrancis, A., 435 14th Ave., Newark, N. J.
Laminated Shim Co., Inc., 2124 44th Ave., Long Island City, N. Y.
Lamson & Sessions Co., The, 1971 W. 85th St., Cleveland, Ohio.
Lane Mfg. Co., Montpelier, Vt.
Lanebro Manufacturing Co., Inc., 110 Main St., Poughkeepsie, N. Y.
Lansing Co., Lansing, Mich.
La Porte Machine & Tool Co., 1304 Lake St., La Porte, Ind.
La Salle Steel Co., Palm Olive Bldg., Chicago, Ill.
Latrobe Tool Co., Drawer "D," Latrobe Pa.
Laughlin, Thomas, Co., The, 143 Fore St., Portland, Maine.
Lavino, E. J., & Co., 1528 Walnut St., Philadelphia, Pa.
Lawrence Duck Co., Lawrence, Mass.
Lay, Joseph, Co., The, Wayne Ave. & Nickel Plate R. R., Portland, Ind.
Layth-Grinder Corp., 28 Canfield St., Orange, N. J.
Leach Co., Oshkosh, Wis.
Leard, William, Co., Inc., The, 16th St. & 5th Ave., New Brighton, Pa.
Le Blond, R. K., Machine Tool Co., Madison & Edwards Rds., Cincinnati, Ohio.
Leeds & Northrup Co., 4901 Stenton Ave., Philadelphia, Pa.
Leetonia Tool Co., The, 160 Front St., Leetonia, Ohio.
Leffel, James, & Co., The, Springfield, Ohio.
Leiman Bros., Inc., 156 Christie St., Newark, N. J.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Leonard Machine Works, 404 Baltimore Ave., Lansdowne, Pa.
Leschen, A., & Sons Rope Co., 5909 Kennerly Ave., St. Louis, Mo.
Leslie Co., Lyndhurst, N. J.
Lewellen Manufacturing Co., Columbus, Ind.
Lewis Bolt & Nut Co., 504 Malcolm Ave., S. E., Minneapolis, Minn.
Lewis, G. B., Co., 426 Montgomery St., Watertown, Wis.
Lewis-Shepard Co., 125 Walnut St., Watertown Station, Boston, Mass.
Lewis Steam Specialty & Valve Co., 247 E. Ashmead St., Philadelphia, Pa.
Libert Machine Co., 322 N. Roosevelt St., Green Bay, Wis.
Lidseen, Gustave, Inc., 832 S. Central Ave., Chicago, Ill.
Lignum-Vitae Products Corp., 91-95 Boyd Ave., Jersey City, N. J.
Lillie, Dexter P., Co., P. O. Box 278, New Bedford, Mass.
Lincoln Electric Co., The, 12818 Coit Road, Cleveland, Ohio.
Linde Air Products Co., The, Unit of Union Carbide & Carbon Corp., 30 E. 42nd St., New York, N. Y.
Linear Packing & Rubber Co., Inc., State Rd. & Levick St., Philadelphia, Pa.
Link-Belt Co., 300 W. Pershing Rd., Chicago, Ill.
Link-Belt Co. (Pacific Division), San Francisco, Cal.
Link, O. P., Handle Co., Salem, Ind.
Lippert, E. T., Saw Co., 608 Lincoln Ave., Millvale Branch, Pittsburgh, Pa.
List, E. J., Mfg. Co., Havana, Ill.
Littleford Bros., 451 E. Pearl St., Cincinnati, Ohio.
Loane Engineering Co., 208 S. Hanover St., Baltimore, Md.
Lockport Fittings Co., Inc., Lockport, N. Y.
Lodge & Shipley Machine Tool Co., The, 3055 Colerain Ave., Cincinnati, Ohio.
Lonergan, J. E., Co., 211 Race St., Philadelphia, Pa.
Loomis Machine Co., Tiffin, Ohio.
Loomis-Manning Filter Mfg. Co., 1421-1444 S. 37th St., Philadelphia, Pa.
Louisville Electric Manufacturing Co., 31st & Magazine Sts., Louisville, Ky.
Louisville Sanitary Wipers Co., Inc., 759-65 S. Preston St., Louisville, Ky.
Lourie Manufacturing Co., 565 Washington Blvd., Chicago, Ill.
Lovejoy Tool Co., Inc., 133 Main St., Springfield, Vt.
Lovejoy Tool Works, 4955 W. Lake St., Chicago, Ill.
Lowell Wrench Co., 54 Commercial St., Worcester, Mass.
Lubriplate Division, Fiske Brothers Refining Co., 24 State St., New York, N. Y.
Lubron Co., The, Tileston & Kelvin Sts., Everett, Mass.
Ludlow-Saylor Wire Co., Newstead Ave. & Wabash R. R., St. Louis, Mo.
Ludlum Steel Co., Watervliet, N. Y.
Lufkin Rule Co., The, Hess St., Saginaw, Mich.
Luitwieler Pumping Engine Co., 123 Ames St., Rochester, N. Y.
Luma Electric Equipment Co., P. O. Box 132, Toledo, Ohio.
Lunkenheimer Co., The, Waverly Ave. and Beekman St., Cincinnati, Ohio.
Luther Grinder & Tool Co., 131 W. Seeboth St., Milwaukee, Wis.
Lynchburg Foundry Co., Peoples Bank Bldg., Lynchburg, Va.
Lyon, Conklin & Co., Inc., Race & McComas Sts., Baltimore, Md.
Lyon Iron Works, Greene, N. Y.
Lyon Metal Products, Inc., 834 Madison Ave., Aurora, Ill.

M

M. C. Tool Co., 1103 W. Monroe St., Chicago, Ill.
M. & H. Valve & Fittings Co., Anniston, Ala.
M-R-C Bearings Co., 402 Chandler St., Jamestown, N. Y.
McAuley Automatic Trap Co., 45 Imperial Power Bldg., Pittsburgh, Pa.
McCampbell & Co., 320 Broadway, New York, N. Y.
McCauley Belting Co., 412 Orleans St., Chicago, Ill.
McCord Radiator & Mfg. Co., 2587 E. Grand Blvd., Detroit, Mich.
McCullough Manufacturing Co., 2632-2634 Central Ave., Minneapolis, Minn.
McDonald, A. Y., Mfg. Co., 12th & Pine Sts., Dubuque, Iowa.
McDonnell & Miller, 400 N. Michigan Ave., Chicago, Ill.
McElmoyl, W. J., & Co., Inc., Groveville, N. J.
McGill Manufacturing Co., 259 Indiana Ave., Valparaiso, Ind.
McGonegal Mfg. Co., The, 228 Orchard St., P. O. Box 149, East Rutherford, N. J.
McGowan, John H., Co., The, 58 Central Ave., Cincinnati, Ohio.
McIlroy Belting Works, Hammond, Ind.
McKay Co., The, 1005 Liberty Ave., Pittsburgh, Pa.
McKinney-Harrington Conveyor Co., 179 W. 22nd St., North Chicago, Ill.
McLanathan, F. W., & Son, Canal St., Lawrence, Mass.
McLean Manufacturing Corp., 103-105 Sixth Ave., New York, N. Y.
McLeod & Henry Co., 357 1st St., Troy, N. Y.
McLeod Leather & Belting Co., 300-302 N. Forbis St., Greensboro, N. C.
McMillan's, W. H., Sons, 49 South St., New York, N. Y.
McNeill, T. W., Engineering Equipment Co., 4057 W. Van Buren St., Chicago, Ill.
McWane Cast Iron Pipe Co., 1201 Vanderbilt Road (P. O. Box 2601), Birmingham, Ala.
Mabbs Hydraulic Packing Co., 431 S. Dearborn St., Chicago, Ill.
Macbeth-Evans Glass Co., Charleroi, Pa.
Machine Shop Equipment Co., 3rd St., Grove City, Pa.
Macklin Co., Jackson, Mich.
MacWatty Belting Co., 7 Beverly St., Providence, R. I.
Macwhyte Co., 2922 14th Ave., Kenosha, Wis.
Madesco Tackle Block Co., Easton, Pa.
Madison-Kipp Corp., 201 Waubesa St., Madison, Wis.
Madison Manufacturing Co., Spring St. & Bauer Ave., Muskegon, Mich.
Maendler Brush Mfg. Co., Inc., 138-42 E. 9th St., St. Paul, Minn.
Magic Leather Treatment Co., 12209 Turner Ave., Detroit, Mich.
Magie Bros., 3634 W. Pershing Rd., Chicago, Ill.
Magnolia Metal Co., 120 Bayway, Elizabeth, N. J.
Main Belting Co., 1241 Carpenter St., Philadelphia, Pa.
Mall Tool Co., 7740 S. Chicago Ave., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Manistee Iron Works Co., Manistee, Mich.
Manley Manufacturing Div. of American Chain Co., Inc., York, Pa.
Manley Products Corp., York, Pa.
Mann Edge Tool Co., Lewistown, Pa.
Manufacturers' Belt Hook Co., 1315-21 W. Congress St., Chicago, Ill.
Manufacturers Brush Co., The, 12501 Elmwood Ave., Cleveland, Ohio.
Manufacturing Equipment & Engineering Co., Marble St., Framingham, Mass.
Manzel Brothers Co., 315 Babcock St., Buffalo, N. Y.
Marathon Electric Manufacturing Corp., Wausau, Wis.
Marchant, Geo. F., Co., 1420 S. Rockwell St., Chicago, Ill.
Marcy Tool Works, Inc., Putnam, Conn.
Mareboro Cotton Mills, McColl, S. C.
Marietta Valve Cup Co., The, 178 Post St., Marietta, Ohio.
Marion Machine, Foundry & Supply Co., Box 685, Marion, Ind.
Marion Malleable Iron Works, Box 689, Marion, Ind.
Marion Steam Shovel Co., The, Marion, O.
Maris Brothers, Inc., 56th St. & Grays Ave., Philadelphia, Pa.
Mark, Clayton & Co., 20 N. Wacker Drive, Chicago, Ill.
Market Forge Co., Garvey St., Everett, Mass.
Markey Machinery Co., Inc., Seattle, Wash.
Markwell Manufacturing Co., Inc., 200 Hudson St., New York, N. Y.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), 205 E. 22nd St., Kansas City, Mo.
Mars Co., The, 215-217 S. River St., Aurora, Ill.
Marsh, Chas. W., Co., Hudson & Michigan Sts., Muskegon, Mich.
Marsh, Jas. P., & Co., 2073 Southport Ave., Chicago, Ill.
Marsh Valve Co., 4th St. & Brigham Rd., Dunkirk, N. Y.

Marshalltown Trowel Co., Marshalltown, Iowa.
Martin, H. P., & Sons, 801 W. 12th St., Owensboro, Ky.
Martin Machine Co., Inc., off 1st St., Montague, Mass.
Maryland Bolt & Nut Co., The, Mt. Washington, Baltimore, Md.
Mason Brush Works, 38 Austin St., Worcester, Mass.
Mason Diesel Engine Co., 3851 Santa Fe Ave., Los Angeles, Calif.
Mason Regulator Co., 1190 Adams St., Boston, Mass.
Mason, Volney W., & Co., 263 Summer St., Boston, Mass.
Massachusetts Machine Shop, Inc., 817 Albany St., Boston, Mass.
Massasoit Mfg. Co., 136 Pocasset St., Fall River, Mass.
Massey Machine Co., Pearl St., Watertown, N. Y.
Master-Craft Corp., 825 Cobb Ave., Kalamazoo, Mich.
Master Electric Co., The, 100 Davis Ave., Dayton, Ohio.
Master Lock Co., 918-926 W. Juneau Ave., Milwaukee, Wis.
Master Lubricants Co., Meadow & Jackson Sts., Philadelphia, Pa.
Master Products Co., The, 5400 Park Ave., S. E., Cleveland, Ohio.
Master Rule Mfg. Co., Inc., 815 E. 136th St., New York, N. Y.
Master Woodworker Mfg. Co., 612 Brush St., Detroit, Mich.
Matchless Metal Polish Co., 840 W. 49th St., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Mattatuck Mfg. Co., The, 1900 E. Main St., Waterbury, Conn.
Matthews, Jas. H., & Co., 3942 Forbes St., Pittsburgh, Pa.
Mattison Machine Works, Rockford, Ill.
Maurey Manufacturing Corp., 2907-15 S. Wabash Ave., Chicago, Ill.
Maydole, David, Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Mechanical Devices Co., Oakland Heights, Bloomington, Ill.
Mechanical Rubber Co., The, 1 Market St., Passaic, N. J.
Medart Co., The, 3500 DeKalb St., St. Louis.
Medart, Fred, Mfg. Co., Potomac & DeKalb Sts., St. Louis, Mo.
Medina Iron & Brass Co., 528 East Ave., Medina, N. Y.
Medusa Portland Cement Co., 1000 Midland Bldg., Cleveland, Ohio.
Meier Electric and Machine Co., 3525 E. Washington St., Indianapolis, Ind.
Memphis Machine Works, 171 Vance St., Memphis, Tenn.
Menasha Wood Split Pulley Co., 674 Tayco St., Menasha, Wis.
Merchant & Evans Co., 2035 Washington Ave., Philadelphia, Pa.
Merco Nordstrom Valve Co., 343 Sansome St., San Francisco, Calif.
Mercoid Corp., The, 4201 Belmont Ave., Chicago, Ill.
Meriam Co., The, 1955 W. 112th St., Cleveland, Ohio.
Merkle Broom Co., Paris, Ill.
Merrell Manufacturing Co., 857 Curtis St., Toledo, Ohio.
Merrick Scale Mfg. Co., 180 Autumn St., Passaic, N. J.
Merriman Bros., Inc., 185 Amory St., Boston, Mass.
Messinger Bearings, Inc., D St., above Erie, Philadelphia, Pa.
Messmer Brass Co., 2700 S. 7th St., St. Louis, Mo.
Metal Saw & Machine Co., Inc., 40 Napier St., Springfield, Mass.
Metal Specialties Mfg. Co., 3200 Carroll Ave. at Kedzie Ave., Chicago, Ill.
Metallizing Co. of America, Inc., 1351 E. 17th St., Los Angeles, Cal.
Metallo Gasket Co., 10-18 Bethany St., New Brunswick, N. J.
Metzgar Co., The, 107 Logan St., S. W., Grand Rapids, Mich.
Meurer Steel Barrel Co., Inc., 105 Ave. L., Newark, N. J.
Mexia Textile Mills, Inc., Mexia, Texas.
Mey Chain Belt Co., 82 Washington St., Buffalo, N. Y.
Meyer Coupling Co., Inc., 324 N. San Pedro St., Los Angeles, Calif.
Michigan Engine Valve Co., 437 West Columbia St., Detroit, Mich.
Michigan Ladder Co., 12 E. Forest Ave., Ypsilanti, Mich.
Michigan Leather Packing Co., Inc., 750 Fourteenth Ave., Detroit, Mich.
Michigan Pipe Co., 503 Phoenix Bldg., Bay City, Mich.
Michigan Smelting & Refining Co., 2512 E. Grand Blvd., Detroit, Mich.
Michigan Wire Cloth Co., 2112 Howard St., Detroit, Mich.
Micro-Westco, Inc., Bettendorf, Iowa.
Midland Mfg. Co., 67 Jennings Ave., Ft. Worth, Tex.
Mid-West Abrasive Co., 2189 Beaufait Ave., Detroit, Mich.
Midwest Broom Manufacturing Co., Half Ave. & Clinton St., Circleville, Ohio.
Midwest Piping & Supply Co., Inc., 1420 S. Second St., St. Louis, Mo.
Mid-West Screw Product Co., Main & St. George Sts., St. Louis, Mo.
Milbradt Mfg. Co., 2410-12 N. 10th St., St. Louis, Mo.
Milburn, Alexander, Co., The, 1416-1428 W. Baltimore St., Baltimore, Md.
Miley, L. J., Co., Inc., 1462 S. Michigan Ave., Chicago, Ill.
Miller, E. L., Mfg. Co., 22 W. 3rd St., Kansas City, Mo.
Miller Electric Mfg. Co., 1134 W. Wisconsin Ave., Appleton, Wis.
Miller Improved Gas Engine Co., The, Fair & Plum Sts., Springfield, Ohio.
Miller Machine Works, Springs, Pa.
Miller Peerless Manufacturing Co., 325 N. Curtis St., Chicago, Ill.
Miller Rubber Co., The, 1247 High St., Akron, Ohio.
Miller Tool & Mfg. Co., Inc., 1725-41 16th St., Detroit, Mich.
Miller, Walter W., Co., 557 E. Washington St., Indianapolis, Ind.
Millers Falls Co., Greenfield, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Milton Manufacturing Co., The, Milton, Pa.
Milwaukee Brush Manufacturing Co., The, 2236 N. 30th St., Milwaukee, Wis.
Milwaukee Electric Tool Corp., 106 N. Water St., Milwaukee, Wis.
Milwaukee Hardware Co., Wm. Bolles, Prop., 120 Clinton St., Milwaukee, Wis.
Milwaukee Leather Belting Co., 508 N. Water St., Milwaukee, Wis.
Milwaukee Steam Appliance Co., West Allis, Wis.
Milwaukee Valve Co., 2375 S. Burrell St., Milwaukee, Wis.
Mine Safety Appliances Co., Braddock, Thomas & Meade Sts., Pittsburgh, Pa.
Minneapolis Honeywell Regulator Co., 2747 4th Ave., S., Minneapolis, Minn.
Minnesota Mining & Mfg. Co., Forest & Fauquier Sts., St. Paul, Minn.
Minnich Machine Works, Landisville, Pa.
Misener Mfg. Co., Inc., 326 E. Washington St., Syracuse, N. Y.
Missouri Belting Co., 1021 S. Grand Blvd., St. Louis, Mo.
Mitchell, W. K., & Co., 2840 Ellsworth St., Philadelphia, Pa.
Mitts and Merrill, 1009 S. Water St., Saginaw, Mich.
Moak Machine & Tool Co., 25-47 Connor St., Port Huron, Mich.
Moccasin Bushing Co., 2000 Chestnut St., Chattanooga, Tenn.
Mockbee, C. M., Co., 816 E. Pearl St., Cincinnati, Ohio.
Modern Engineering Co., 3411-13 Pine Blvd., St. Louis, Mo.
Modern Grinder Mfg. Co., 64 Reed St., Milwaukee, Wis.
Modern Machine Tool Co., 601 S. Water St., Jackson, Mich.
Modern Mfg. Co., The, 4734 Hough Ave., Cleveland, Ohio.
Modine Mfg. Co., 17th St., Racine, Wis.
Moeller Instrument Co., Inc., 261-5 Sumpter St., Brooklyn, N. Y.
Moffatt Machinery Mfg. Co., Third St., Charlotte, N. C.
Mohn Machine Co., 230 Wood St., Reading, Pa.
Molded Specialties Co., 4712 Chester Ave., Cleveland, Ohio.
Moline Malleable Iron Co., St. Charles, Ill.
Moline Tool Co., 102 20th St., Moline, Ill.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Moloney Belting Co., 1291 Elston Ave., Chicago, Ill.
Moltrup Steel Products Co., 14th St. & 2nd Ave., Beaver Falls, Pa.
Monarch Cap Screw & Mfg. Co., The, 5906 Park Ave., Cleveland, Ohio.
Monarch Machine Tool Co., The, Sidney, Ohio.
Monarch Soot Remover Co., Inc., 261 Franklin St., Boston, Mass.
Mont, R. A., & Co., Inc., Plainville, Conn.
Monticello Cotton Mills Co., Monticello, Ark.
Moore Flange Corp., 103 Park Ave., New York, N. Y.
Moore-Master Mfg. Co., 3445-47 N. Western Ave., Chicago, Ill.
Moore Steam Turbine Corp., 38 Coats St., Wellsville, N. Y.
Moore & White Co., The, 15th St. & Lehigh Ave., Philadelphia, Pa.
Moran Flexible Steam Joint Co., 217 W. Main St., Louisville, Ky.
Morgan Vise Co., 110 N. Jefferson St., Chicago, Ill.
Morris Machine Works, Baldwinsville, N.Y.
Morris Metallic Packing Co., Lehigh Ave. & Mutter St., Philadelphia, Pa.
Morris Truck & Wheel Co., Inc., 760-790 S. 42nd St., Philadelphia, Pa.
Morrison Bros., 24th & Elm Sts., Dubuque, Iowa.
Morse Chain Co., Ithaca, N. Y.
Morse Grate Bar Co., Inc., 86 Weybosset St., Providence, R. I.
Morse Twist Drill & Machine Co., 163 Pleasant St., New Bedford, Mass.
Morton Manufacturing Co., Muskegon Heights, Mich.
Moseley Lathe Co., The, 162 Brook St., Elgin, Ill.
Moss, Henry, & Co., Inc., 113 53rd St., Brooklyn, N. Y.
Moto Meter Gauge & Equipment Corp., 449 Hamilton St., Toledo, Ohio.
Mott Sand Blast Mfg. Co., Inc., 4611-4621 Flournoy St., Chicago, Ill.
Mountville Mfg. Co., Mountville, Pa.
Mt. Vernon Mills, Baltimore, Md.
Mt. Vernon-Woodberry Mills, Inc., Mercantile Trust Bldg., Baltimore, Md.
Mueller Brass Co., 1925 Lapeer Ave., Port Huron, Mich.
Mueller Co., 512 W. Cerro Gordo St., Decatur, Ill.
Mulconroy Company, 54th & Jefferson Sts., Philadelphia, Pa.
Multi-Seal Manufacturing Co., 123 N. Jefferson St., Chicago, Ill.
Mummert-Dixon Co., Philadelphia & Gay Sts., Hanover, Pa.
Murallo Corp., Staten Island, N. Y.
Murdock, M. F., The, Co., 310 Water St., Akron, Ohio.
Murphy, E. L., 38 S. Dearborn St., Chicago.
Murphy Metals Co., 7 S. Dearborn St., Chicago, Ill.
Murray, D. J., Mfg. Co., 1002 Third St., Wausau, Wis.
Murray Iron Works Co., 1106 Washington St., Burlington, Iowa.
Murray, William H., 236 Jerome St., Brooklyn, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.

N

N. A. C. Corporation, The, Ninth & Cooper Sts., Camden, N. J.
Napier Saw Works, Inc., 22 Cottage St., Middletown, N. Y.
Nason Manufacturing Co., 71 Fulton St., New York, N. Y.
National Acme Co., The, Coit Rd. & E. 131st St., Cleveland, Ohio.
National Asbestos Mfg. Co., The, 163 Henderson St., Jersey City, N. J.
National Boiler Protector Co., 740-41 Reibold Bldg., Dayton, Ohio.
National Carbide Corp., Lincoln Bldg., 60 E. 42nd St., New York, N. Y.
National Carbon Co., Inc., P. O. Box 400, Cleveland, Ohio.
National Copper Paint Corp., 440 N. Wells St., Chicago, Ill.
National Copper & Smelting Co., The, 1362 E. 123rd St., Cleveland, Ohio.
National Dry Kiln Co., The, 446 W. Georgia St., Indianapolis, Ind.
National Fan & Blower Corp., 543 Washington Blvd., Chicago, Ill.
National Lead Co., 111 Broadway, New York, N. Y.
National Lock Co., Rockford, Ill.
National Lock Washer Co., The, 40 Herman St., Newark, N. J.
National Machine Tool Co., 1536 Clark St., Racine, Wis.
National Manufacturing Corp., Tonawanda, N. Y.
National Motor Bearing Co., Inc., 1100 78th Ave., Oakland, Calif.
National Radiator Corp., 221 Central Ave., Johnstown, Pa.
National Screw & Mfg. Co., The, 2440 E. 75th St., Cleveland, Ohio.
National Superior Co., Springfield, Ohio.
National Tool Co., The, Madison and W. 112th St., Cleveland, Ohio.
National Transit Pump & Machine Co., 19 N. Petroleum St., Oil City, Pa.
National Tube Co., Frick Bldg., Pittsburgh, Pa.
National Twist Drill & Tool Co., 6522-44 Brush St. at E. Grand Blvd., Detroit, Mich.
Naylor Pipe Co., 1230 92nd St., Chicago, Ill.
Neely Nut & Bolt Co., 2101 Wharton St., Pittsburgh, Pa.
Neilan Co., Ltd., (Division of Mason Regulator Co.), 641-651 Santa Fe Ave., Los Angeles, Calif.
Nelson Bros. Co., Saginaw, Mich.
Nelson, L. R., Mfg. Co., Inc., 1725 S. Washington St., Peoria, Ill.
Never Slip Safety Clamp Co., Grand Central Annex, P. O. Box 448, New York, N.Y.
Newark Brush & Scraper Co., 390-396 Nye Ave., Irvington, N. J.
Newark Wire Cloth Co., 339-353 Verona Ave., Newark, N. J.
Newbury, Jay H., & Sons, Inc., 67 Spring St., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
New England Screw Co., 44-54 Farnsworth St., Boston, Mass.

Newhall Chain Forge & Iron Co., 48 W. Broadway, New York, N. Y.
New Jersey Zinc Co., The, 160 Front St., New York, N. Y.
Newman Brothers, Inc., 660-670 W. Fourth St., Cincinnati, Ohio.
New Process Twist Drill Co., 34 Court St., Taunton, Mass.
Newton Steel Co., (Subsidiary of Republic Steel Corp.), Fisher Bldg., Detroit, Mich.
New York Belting & Packing Co., 1 Market St., Passaic, N. J.
New York Brass Foundry Co., 405 Broome St., New York, N. Y.
Nice Ball Bearing Co., 30th St. and Hunting Park Ave., Philadelphia, Pa.
Nicholson, W. H., & Co., 12 Oregon St., Wilkes Barre, Pa.
Nicholson File Co., 23 Acorn St., Providence, R. I.
Niedner's, Chas., Sons Co., 10-20 James St., Malden, Mass.
Nixdorff-Krein Mfg. Co., 900 Howard St., St. Louis, Mo.
Noble & Westbrook Mfg. Co., The, 20 Westbrook St., East Hartford, Conn.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
North American Refractories Co., Cleveland, Ohio.
North Bros. Mfg. Co., American St. and Lehigh Ave., Philadelphia, Pa.
Northern Electric Co., 2835 N. Western Ave., Chicago, Ill.
Northern Incandescent Lamp Co., Hoboken, N. J.
Northern Metallic Packing Co., 429 University Ave., St. Paul, Minn.
Northern Specialty Co., 808 Union St., Utica, N. Y.
Northfield Foundry & Machine Co., Northfield, Minn.
Northwest Lead Co., 1744 4th Ave., S., Seattle, Wash.
Northwestern Barb Wire Co., Sterling, Ill.
Norton Belting Co., 21 Cushing Rd., Wellesley Hills, Mass.
Norton Company, 1 New Bond St., Worcester, Mass.
Nott, W. S., Co., 201-11 N. 3rd St., Minneapolis, Minn.
Novelty Steam Boiler Works Co., The, Clare & Kloman Sts., Baltimore, Md.
Noyes, B. B., Co., 106 Hope St., Greenfield, Mass.
Nucord Products Co., 605 W. Washington Blvd., Chicago, Ill.
Nugent, Wm. W., & Co., 410-412 N. Hermitage Ave., Chicago, Ill.
Nunn Brass Works, 17 Wentworth St., Rochester, N. Y.
Nute, McGehee, Geary Co., Inc., The, S. Main St., Chambersburg, Pa.
Nutting Truck Co., 1122 W. Division St., Faribault, Minn.
Nye Steam Pump & Machinery Co., 621 S. Kolmar Ave., Chicago, Ill.
Nye Tool & Machine Works, The, 4120 Fullerton Ave., Chicago, Ill.

O

O. K. Clutch & Machinery Co., Columbia, Pa.
O. K. Tool Holder Co., The, Shelton, Conn.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oberdorfer, M. L., Brass Co., Syracuse, N.Y.
Ohio Brass Co., Mansfield, Ohio.
Ohio Buff & Mfg. Co., The, 610 Burns St., Cincinnati, Ohio.
Ohio Carbon Co., The, 12508 Berea Rd., Cleveland, Ohio.
Ohio Forge & Machine Corp., 3010 Woodhill Rd., Cleveland, Ohio.
Ohio Injector Co., The, 243 Main St., Wadsworth, Ohio.
Ohio Knife Co., The, Dreman Ave. & B. & O. R. R., Cincinnati, Ohio.
Ohio Valley Pulley Works, The, Division Browning Manufacturing Co., Inc., Maysville, Ky.
Ohlen-Bishop Co., The, Ingleside Ave., Columbus, Ohio.
Oliver-Barth Jack Co., 1669 S. First St., Milwaukee, Wis.
Oliver Machinery Co., 1011 Coldbrook St., N. E., Grand Rapids, Mich.
Oliver Motorcraft Corp., 2532 S. Wabash Ave., Chicago, Ill.
Oliver, W. W., Mfg. Co., The, 1483 Niagara St., Buffalo, N. Y.
O'Meara Belting Co., 716 N. 28th Ave., Omaha, Neb.
Onan, D. W., & Sons, 43 Royalston Ave., Minneapolis, Minn.
Oneida Electric Mfg. Co., Green Bay, Wis.
Oneida Wood Pulley Co., Inc., 436 W. Railroad St., Oneida, N. Y.
Onesti Bros., Highland Park, Ill.
Onsrud Machine Works, Inc., 3903 Palmer St., Chicago, Ill.
Orange Roller Bearing Co., 557 Main St., Orange, N. J.
Orangeville Mfg. Co., Orangeville, Pa.
Orr & Sembower, Inc., Reading, Pa.
Orum, S. R. M., Inc., 503 N. 11th St., Philadelphia, Pa.
Osborn Manufacturing Co., The, 5401 Hamilton Ave., Cleveland, Ohio.
Osgood, J. L., Machinery & Tool Co., Inc., 43 Pearl St., Buffalo, N. Y.
Oster Manufacturing Co., The, 2041 E. 61st Pl., Cleveland, Ohio.
Otis Co., Three Rivers, Mass.
Otley Paint Mfg. Co., 1742 N. Winchester Ave., Chicago, Ill.
Ottemiller, Wm. H., Co., Inc., The, Pattison St. and M. & P. R. R., York, Pa.
Otto Engine Works, Holmesburg, Philadelphia, Pa.
Outing Manufacturing Company, Inc., 571 E. Jackson Blvd., Elkhart, Ind.
Owen Silent Spring Co., Inc., Bridgeport, Conn.
Owens-Illinois Glass Co., Ohio Bldg., Madison Ave., Toledo, Ohio.

P

Paasche Airbrush Co., 1902 Diversey Parkway, Chicago, Ill.
Pacific Chemical Co., 114 College St., Los Angeles, Calif.
Pacific States Cast Iron Pipe Co., Box 18, Provo, Utah.
Pacific Wire Rope Co., 1840 E. 15th St., Los Angeles, Cal.
Page Belting Co., Concord, N. H.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Palmer Co., The, 26-B Clay St., Cincinnati (St. Bernard), Ohio.
Palmer-Bee Co., 1701 Poland Ave., Detroit, Mich.
Palmetto Cotton Mills, Palmetto, Ga.
Pancoast, Henry B., Co., 950 N. Front St., Philadelphia, Pa.
Pannier Bros. Stamp Co., 207-209 Sandusky St., Pittsburgh, Pa.
Paraffine Companies, Inc., The, 475 Brannan St., San Francisco, Calif.
Parker Appliance Co., The, 10320 Berea Road, Cleveland, Ohio.
Parker, Charles Co., The, 48 Elm St., Meriden, Conn.
Parker Cup & Specialty Works, Inc., River Ave., Parkers Landing, Pa.
Parker-Kalon Corp., 192 Varick St., New York, N. Y.
Parker Rust Proof Co., 2177 Milwaukee Ave., E., Detroit, Mich.
Parks-Cramer Co., 970 Main St., Fitchburg, Mass.
Parks, Harry S., Co., 3334 Market St., Philadelphia, Pa.
Patent Scaffolding Co., The, 1550 Dayton St., Chicago, Ill.
Patterson Lubricating Co., 85 Purchase St., Boston, Mass.
Paul, J. C., & Co., 930 Roscoe St., Chicago, Ill.
Paulus, Jos. C., & Co., 2507 Potter St., Philadelphia, Pa.
Pawtucket Manufacturing Co., 327 Pine St., Pawtucket, R. I.
Payson Mfg. Co., The, 2920 Jackson Blvd., Chicago, Ill.
Peck, Stow & Wilcox Co., Center St., Southington, Conn.
Peerless Level & Tool Co., The, Sterling, Ill.
Peerless Machine Co., 1615-17 Racine St., Racine, Wis.
Pels, Henry, & Co., Inc., 90 West St., New York, N. Y.
Penberthy Injector Co., 1242 Holden Ave., Detroit, Mich.
Peninsular Grinding Wheel Co., 729 Meldrum Ave., Detroit, Mich.
Penn Brass & Copper Co., 1124 W. 18th St., Erie, Pa.
Pennsylvania Flexible Metallic Tubing Co. 72nd & Powers Lane, Philadelphia, Pa.
Pennsylvania Furnace & Iron Co., 316 Pine St., Warren, Pa.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Pep Manufacturing Co., 33 W. 42nd St., New York, N. Y.
Perkes, Charles, Co., 1508 N. Mascher St., Philadelphia, Pa.
Perkins & Co., 562 Front Ave., N. W., Grand Rapids, Mich.
Perkins Marine Lamp & Hardware Corp., 1943 Pitkin Ave., Brooklyn, N. Y.
Permutit Co., The, 440 4th Ave., New York, N. Y.
Peterson, F. W., Co., 117 Prince St., New York, N. Y.
Pfeiffer, John, & Co., 222 Race St., Philadelphia, Pa.
Pheoll Mfg. Co., 5714 West Roosevelt Rd., Chicago, Ill.
Philadelphia Belting Co., Sixth and Spring Garden Sts., Philadelphia, Pa.
Philadelphia Gear Works, Erie Ave. & G St., Philadelphia, Pa.
Philadelphia Grease Mfg. Co., The, 846-850 S. Swanson St., Philadelphia, Pa.
Philadelphia Steel & Wire Corp., Penn and Belfield Aves., Philadelphia, Pa.
Philadelphia Thermometer Co., 915 Filbert St., Philadelphia, Pa.
Phoenix Fire Extinguisher Co., 9 Grove St., Norwich, Conn.
Phosphor Bronze Smelting Co., The, 2200 Washington Ave., Philadelphia, Pa.
Pilley Packing & Flue Brush Mfg. Co., 606-608 & 610 S. 3rd St., St. Louis, Mo.
Pioneer Rubber Mills, 345-353 Sacramento St., San Francisco, Calif.
Pipe Saver Corp. of America, Carthage, N. Y.
Piqua Munising Wood Products Co., The, Union Trust Bldg., Cleveland, Ohio.
Pittsburgh Brass Mfg. Co., Penn Ave. at 32nd St., Pittsburgh, Pa.
Pittsburgh Crushed Steel Co., 61st St. & A. V. R. R., Pittsburgh, Pa.
Pittsburgh Engineering Works, P. O. Box 1125, Pittsburgh, Pa.
Pittsburgh Plate Glass Co., Brush Division, Carroll Station P. O., Baltimore, Md.
Pittsburgh Screw & Bolt Corp., P. O. Box 752, Pittsburgh, Pa.
Pittsburgh Thermoline Co., 45 S. 20th St., Pittsburgh, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Pittsburgh Valve & Fittings Co., Newel St., Barberton, Ohio.
Plant Engineering & Equipment Co., Inc., 68 Summit St., Brooklyn, N. Y.
Plews Oiler Co., 258 Sexton Bldg., Minneapolis, Minn.
Plomb Tool Co., 2209 Santa Fe St., Los Angeles, Calif.
Plumb, Fayette R., Inc., 4837 James St., Philadelphia, Pa.
Plymouth Cordage Co., North Plymouth, Mass.
Plymouth Foundry and Machine Co., Plymouth, Wis.
Plymouth Industries, Inc., Plymouth, Ind.
Pollard Bros. Mfg. Co., 4444 N. Knox Ave., Chicago, Ill.
Pomona Pump Co., 206 E. Commercial St., Pomona, Calif.
Portable Power Tool Corp., Warsaw, Ind.
Porter, H. K., Inc., 6 Ashland St., Everett, Mass.
Porter Manufacturing Co. (Division of Advance Car Mover Co.), Appleton, Wis.
Positive Lock Washer Co., The, 181 Miller St., Newark, N. J.
Powell, Wm., Co., The, 2525 Spring Grove Ave., Cincinnati, Ohio.
Power Manufacturing Co., The, Cheney Ave. (P. O. Box 508), Marion, Ohio.
Powers Regulator Co., The, 2720 Greenview Ave., Chicago, Ill.
Pratt & Whitney Co., 436 Capitol Ave., Hartford, Conn.
Pratt, Wm. E., Mfg. Co., Henderson & Norton Aves., Joliet, Ill.
Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.
Premax Sales Division, Chisholm-Ryder Co., Inc., Niagara Falls, N. Y.
Prentiss Vise Co., 110 Lafayette St., New York, N. Y.
Prier Brass Mfg. Co., 15th St. & Blue River, Kansas City, Mo.
Procunier Safety Chuck Co., 18 S. Clinton St., Chicago, Ill.
Products Manufacturing Co., 416 N. Milwaukee St., Milwaukee, Wis.
Propellair, Inc., 1345 Lagonda Ave., Springfield, Ohio.
Protection Products Mfg. Co., New Center Bldg., Detroit, Mich.
Pulmosan Safety Equipment Corp., 176 Johnson St., Brooklyn, N. Y.
Pulsometer Steam Pump Co., 485 S. 21st St., Irvington, N. J.
Pumpless Blow Torch Co., 909 Keystone Bldg., Pittsburgh, Pa.
Punxsutawney Foundry and Machine Co., Railroad St., Punxsutawney, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Pyott Foundry & Machine Co., 330 N. Sangamon St., Chicago, Ill.
Pyrene Manufacturing Co., 560 Belmont Ave., Newark, N. J.
Pyrometer Instrument Co., The, 103 Lafayette St., New York, N. Y.

Q

Quadriga Mfg. Co., The, 213 W. Grand Ave., Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Quickwork Co., The, 900 Spaulding Ave., Chicago, Ill.
Quigley Co., Inc., 56 W. 45th St., New York.
Quincy Compressor Co., 217 Maine St., Quincy, Ill.

R

R. S. Products Corp., 4530 Germantown Ave., Philadelphia, Pa.
Racine Tool & Machine Co., 1700 State St., Racine, Wis.
Rahmann, Geo., & Co., 31 Spruce St., New York, N. Y.
Raico Manufacturing Co., 123-141 North Albany Ave., Chicago, Ill.
Ramsey Chain Co., Inc., Albany, N. Y.

Ramsey Machinery Co., 1626 N. W. Thurman St., Portland, Ore.
Randle Machinery Co., The, 1723 Powers St., Cincinnati, Ohio.
Raniville, F., Co., 241 Pearl St., Grand Rapids, Mich.
Rapid Spring Co., The, Imperial Power Bldg., Pittsburgh, Pa.
Rauch Manufacturing Co., The, Front & Joplin Sts., Galena, Kan.
Rauschenberger, John, Co., 423 N. Plankinton Ave., Milwaukee, Wis.
Rawlplug Co., Inc., The, 98 Lafayette St., New York, N. Y.
Raybestos Division of Raybestos-Manhattan, Inc., 1437 Railroad Ave., Bridgeport, Conn.
Ray Pressure Snubber Co., 315 E. Fifth St., Charlotte, N. C.
Reading Chain & Block Corp., 2150 Adams St., Reading, Pa.
Reading Iron Co., 401 N. Broad St., Philadelphia, Pa.
Reading-Pratt & Cady Co., Inc., 929 Connecticut Ave., Bridgeport, Conn.
Reardon Co., The, 2201 N. Second St., St. Louis, Mo.
Red Cross Mfg. Co., The, Bluffton, Ind.
Red Devil Manufacturing Co., P. O. Box 244, Palatine, Ill.
Red Star Products Corp., P. O. Sta. D, Cleveland, Ohio.
Red Top Auger Co., The, Birmingham, Ala.
Reed, Francis, Co., No. 1 Grout Court, Worcester, Mass.
Reed Manufacturing Co., Erie, Pa.
Reed-Prentice Corp., 677 Cambridge St., Worcester, Mass.
Reed & Prince Mfg. Co., 1 Duncan Ave., Worcester, Mass.
Rees', Hans, Sons, 39 Frankfort St., New York, N. Y.
Reeves Pulley Co., 1225 7th St., Columbus, Ind.
Refractory & Engineering Corp., 381 Fourth Ave., New York, N. Y.
Reichel & Drews, 452-4-6 N. Ashland Ave., Chicago, Ill.
Reid, Joseph, Gas Engine Co., Oil City, Pa.
Reiter, G. C., Box 408, 1917 Henry Ave., S. W., Canton, Ohio.
Remington Rand, Inc., 465 Washington St., Buffalo, N. Y.
Republic Flow Meters Co., 2240 Diversey Parkway, Chicago, Ill.
Republic Rubber Co., The, Albert St., Youngstown, Ohio.
Republic Steel Corp., Republic Bldg., Cleveland, Ohio.
Republic Steel Package Co., The, 7930 Jones Road, Cleveland, Ohio.
Revere Copper and Brass, Inc. (Dallas Division), 2200 N. Natchez Ave., Chicago.
Revere Copper and Brass, Inc., Rome Division, Bouck St., Rome, N. Y.
Revolvator Co., North Bergen, N. J.
Reznor Mfg. Co., E. Market St., Mercer, Pa.
Rhoads, J. E., & Sons, 35 N. 6th St., Philadelphia, Pa.
Rhode Island Fittings Co., Hills Grove, R. I.
Rhodes Manufacturing Co., The, Ames St., Waltham, Mass.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., 2354 Lincoln Ave., Chicago, Ill.
Rich Pump and Ladder Co., Inc., The, 1028 Depot St., Cincinnati, Ohio.
Richards Badger-Packard Co., 3423 W. Vliet St., Milwaukee, Wis.
Richards-Wilcox Mfg. Co., 3rd & Lake Sts., Aurora, Ill.
Richardson, Edro, Brass Co., The, Monument & Kresson Sts., Baltimore, Md.
Richmond Belt Dressing Mfg. Co., Inc., P. O. Box 621, Richmond, Va.
Rickersberg Brass Co., The, 3830 Kelley Ave., Cleveland, Ohio.
Ridge Tool Co., The, Elyria, Ohio.
Rinald, H., Co., P. O. Box 4051, West Philadelphia, Pa.
Rinn, Albert E., Co., Allentown, Pa.
Riverside Mills, Inc., 1 11th St., Augusta, Ga.
Robbins & Myers, Inc., Hoist & Crane Division, 1345 Lagonda Ave., Springfield, Ohio.
Roberts Brass Mfg. Co., The, 5435 Fort St., W., Detroit, Mich.
Roberts Manufacturing Co., 12 Beacham St., Everett, Mass.
Robertson, W., Machine & Foundry Co., 56-58 Rano St., Buffalo, N. Y.
Robinson Fire Apparatus Mfg. Co., 4250-70 N. 20th St., St. Louis, Mo.
Robinson Mfg. Co., Baldwin & Kelsey Sts., Waterbury, Conn.
Robinson Mfg. Co., 8123 Bruner S. E., Cleveland, Ohio.
Rochester Can Co., 109 Hague St., Rochester, N. Y.
Rochester Lead Works, 380 Exchange St., Rochester, N. Y.
Rochester Ropes, Inc., Jamaica, N. Y.
Rock Island Mfg. Co., 1533 1st St., Rock Island, Ill.
Rock River Machine Co., 413 N. Main St., Janesville, Wis.
Rockford Brass Works, 700 S. Main St., Rockford, Ill.
Rockford Drilling Machine Division, Borg-Warner Corporation, Catherine St., Rockford, Ill.
Rockford Machine Tool Co., 2400 Kishwaukee St., Rockford, Ill.
Rockford Screw Products Co., 2531 Ninth St., Rockford, Ill.
Rockwood Manufacturing Co., 1801 English Ave., Indianapolis, Ind.
Rockwood Sprinkler Co., 38 Harlow St., Worcester, Mass.
Roebling's, John A., Sons Co., 640 S. Broad St., Trenton, N. J.
Rogers Metal Works, 2123 Jefferson St., Kansas City, Mo.
Rogers, Samuel C., & Co., 191-205 Dutton Ave., Buffalo, N. Y.
Roller Bearing Company of America, Whitehead Road, Trenton, N. J.
Romec Pump Co., 333 E. Bridge St., Elyria, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Rope Fire Escape Co., 924 N. 13th St., Philadelphia, Pa.
Roper, Geo. D., Corp., Blackhawk Ave., Rockford, Ill.
Rose, Frank, Mfg. Co., Hastings, Neb.
Ross, David J., Co., Ross Park, Benton Harbor, Mich.
Ross Heater & Mfg. Co., Inc., 1407-11 West Ave., Buffalo, N. Y.
Ross Mfg. Co., The, 6402 Cedar Ave., Cleveland, Ohio.
Round, David, and Son, Broadway & Henry St., Cleveland, Ohio.
Rowe Manufacturing Co., 614 W. 3rd St., Galesburg, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Rowell Mfg. Co., 713-721 N. Union St., Appleton, Wis.
Royal Electric Co., Inc., Avon, Mass.
Royal Metal Mfg. Co., 1138-40 S. Michigan Ave., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Main St., Royersford, Pa.
Rubberhide Co., Trenton, N. J.
Rubberset Co., 75 West St., New York, N. Y.
Rubberwear Glove Co., 483 Kenmore Blvd., Akron, Ohio.
Ruberoid Co., The, 500 Fifth Ave., New York, N. Y.
Ruby Chemical Co., The, 76 McDowell St., Columbus, Ohio.
Ruemelin Mfg. Co., S. 1570 First St., Milwaukee, Wis.
Ruleta Co., Inc., 22 Warren St., New York, N. Y.
Rumsey Pump Corp., Johnston St., Seneca Falls, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Midland Ave., Port Chester, N. Y.
Russell Electric Co., 340 W. Huron St., Chicago, Ill.
Russell, Frank, Glove Co., The, Berlin, Wis.
Russell Mfg. Co., Middletown, Conn.
Rust-Pruf Co., The, 549 Washington Blvd., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., 2558 W. 16th St., Chicago, Ill.

S

S.K.F. Industries, Inc., Front St. & Erie Ave., Philadelphia, Pa.
Sackett, H. B., Screen & Chute Co., 1685 Elston Ave., Chicago, Ill.
Sacramento Pipe Works, 116 N. 16th St., Sacramento, Calif.
Safety Belt-Lacer Co., Toledo Factory Bldg., Toledo, Ohio.
Safety Equipment Service Co., The, 1228 St. Clair Ave., N. E., Cleveland, Ohio.
Safety Fire Extinguisher Co., The, 293 7th Ave., New York, N. Y.
Safety First Shoe Co., Holliston, Mass.
Safety Grinding Wheel & Machine Co., The, 2466 Columbus Ave., Springfield, Ohio.
Safety Truck Brake Co., Inc., 112 N. Outagamie St., Appleton, Wis.
Safety Wrench & Appliance Co., 56 Commercial Ave., Worcester, Mass.
Saginaw Stamping & Tool Co., 90 Williamson St., Saginaw, Mich.
St. Louis Cordage Mills, 11th & Lafayette, St. Louis, Mo.
Salisbury, W. H., & Co., Inc., 401-421 N. Morgan St., Chicago, Ill.
Sampson Tool Co., Inc., 101 Walker St., New York, N. Y.
Samson Cordage Works, 89 Broad St., Boston, Mass.
Sands Mfg. Co., The, 5407 Sweeney Ave., Cleveland, Ohio.
Sandvik Saw & Tool Corp., 740 Washington Ave. N., Minneapolis, Minn.
Sandvik Steel, Inc., Woolworth Bldg., New York, N. Y.
Sanitary Washed Wiper Co., 19-25 E. South St., Indianapolis, Ind.
Sarco Co., Inc., 183 Madison Ave., New York, N. Y.
Sargent Co., 2073 Southport Ave., Chicago.
Sargent & Co., P. O. Box 1940, New Haven, Conn.
Sauereisen Cements Co., 2308 Main St., Pittsburgh, Pa.
Saylor-Beall Manufacturing Co., 1519 E. Philadelphia Ave., Detroit, Mich.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schade Valve Mfg. Co., 2527 N. Bodine St., Philadelphia, Pa.
Schaefer & Beyer, Inc., 50-52 Bragaw Ave., Newark, N. J.
Schaefer Brush Mfg. Co., 1011 So. 2nd St., Milwaukee, Wis.
Schatz Mfg. Co., Poughkeepsie, N. Y.
Schauer Machine Co., The, 905 Broadway, Cincinnati, Ohio.
Schieren, Chas. A., Co., 38-42 Ferry St., New York, N. Y.
Schollhorn, Wm., Co., The, 414 Chapel St., New Haven, Conn.
Schrader's, A., Son Division of Scovill Manufacturing Co., Inc., 470 Vanderbilt Ave., Brooklyn, N. Y.
Schramm, Inc., West Chester, Pa.
Schultz, A. L., & Son, 1675 Elston Ave., Chicago, Ill.
Schutte & Koerting Co., 12th & Thompson Sts., Philadelphia, Pa.
Schwenk Safety Device Corp., 80 Broad St., New York, N. Y.
Scott Valve Manufacturing Co., 3963 McKinley Ave., Detroit, Mich.
Scovill Mfg. Co., 99 Mill St., Waterbury, Conn.
Scranton Pump Co., The, 1445 Meylert Ave., Scranton, Pa.
Scully-Jones, & Co., 1901 S. Rockwell St., Chicago, Ill.
Scully Steel & Iron Co., 2364 S. Ashland Ave., Chicago, Ill.
Security Insert Co., 1424 Widener Bldg., Philadelphia, Pa.
Self Cleaning Strainer Co., 5125 S. Carpenter St., Chicago, Ill.
Self-Vulcanizing Rubber Co., Inc., 517-V, 605 W. Washington Blvd., Chicago, Ill.
Semler Co., Jeannette, Pa.
Sero Specialty Co., 2860 E. 84th St., Cleveland, Ohio.
Service Caster & Truck Co., The, 529 N. Albion St., Albion, Mich.
Shafer Bearing Corp., 35 East Wacker Drive, Chicago, Ill.
Shakeproof Lock Washer Co., 2501 N. Keeler Ave., Chicago, Ill.
Shaw-Box Crane & Hoist Co., Inc., Broadway & Park Ave., Muskegon, Mich.
Shaw Kendall Engineering Co., The, 120-130 S. Superior St., Toledo, Ohio.
Shawinigan Products Corp., Empire State Bldg., New York, N. Y.
Sheffield Steel Corp., Sheffield Station, Kansas City, Mo.
Sheldon Machine Co., 3253-55 Cottage Grove Ave., Chicago, Ill.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Sherman, H. B., Mfg. Co., 22 Barney St., Battle Creek, Mich.
Sherman Mfg. Co., Sherman, Texas.
Sherwin-Williams Co., The, 601 Canal Rd., N. W., Cleveland, Ohio.
Shingle-Gibb Leather Co., 54th St. & Grays Ave., Philadelphia, Pa.
Shortridge, E. G., & Co., 615 S. Armstrong St., Kokomo, Ind.
Shovel-Barrow Co., 80 E. Jackson Blvd., Chicago, Ill.
Shuron Optical Co., Inc., Geneva, N. Y.
Sibley Machine & Foundry Co., South Bend, Ind.
Sidney Steel Scraper Co., The, Sidney, Ohio.
Sight-Feed Generator Co., The, 6 North 16th St., Richmond, Ind.
Signal Electric Mfg. Co., Menominee, Mich.
Silver Lake Co., Chattahoochee, Ga.
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Simplex Time Recorder Co., S. Lincoln, Gardner, Mass.
Simplex Wire & Cable Co., 79 Sidney St., Boston, Mass.
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Skidmore Corp., St. Joseph, Mich.
Skilsaw, Inc., 3310 Elston Ave., Chicago, Ill.
Skinner Chuck Co., The, 344 Church St., New Britain, Conn.
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Smith & Kanzler, Inc., 516 Lidgerwood Ave., Elizabeth, N. J.
Smith Power Transmission Co., The, Penton Bldg., Cleveland, Ohio.
Smith & Serrell, 20 Washington Pl., Newark, N. J.

Smith, Thomas, Co., 288 Grove St., Worcester, Mass.
Smith Welding Equipment Corp., 2619-33 4th St., S. E., Minneapolis, Minn.
Smith, Winfield H., Inc., 20 Eaton St., Springville, N. Y.
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Smyth-Despard Co., 800 Broad St., Utica, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Solarine Co., Smallwood & Eagle Sts., Baltimore, Md.
Somerville Iron Works, James St., Somerville, N. J.
South Bend Lathe Works, 425 E. Madison St., South Bend, Ind.
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Southern Friction Materials Co., P. O. Box 1392, Charlotte, N. C.
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Stalter Edge Tool Co., 321 Straight Ave., S. W., Grand Rapids, Mich.
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Standard Asbestos Mfg. Co. of Chicago, 820 W. Lake St., Chicago, Ill.
Standard Belt Fastener Co., The, 168 Water St., Unionville, Conn.
Standard Electrical Tool Co., The, 1950 W. 8th St., Cincinnati, Ohio.
Standard Fuel Engineering Co., 667 Post Ave., S., Detroit, Mich.
Standard Gage Co., Poughkeepsie, N. Y.
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Standard Pressed Steel Co., Jenkintown, Pa.
Standard Shop Equipment Co., 82nd & Tinicum Ave., Philadelphia, Pa.
Standard Steel Specialty Co., P. O. Box 546, Beaver Falls, Pa.
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Stanley Rule & Level Plant, The, 111 Elm St., New Britain, Conn.
Stanley Works, The, 195 Lake St., New Britain, Conn.
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Star Expansion Bolt Co., 147 Cedar St., New York, N. Y.
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Starline, Inc., 300 W. Front St., Harvard, Ill.
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Strickler, W. W., & Brothers, 538 E. Rich St., Columbus, Ohio.
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Sumet Co., 1543 Fillmore Ave., Buffalo, N. Y.
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Sunnen Products Co., 7900 Manchester Ave., St. Louis, Mo.
Sun Oil Co., 1608 Walnut St., Philadelphia, Pa.
Superior Flake Graphite Co., 33 S. Clark St., Chicago, Ill.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
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Sutton, C. N., Chemical Co., 4515 Ravenswood Ave., Chicago, Ill.
Sutton Tool Co., 2842 W. Grand Blvd., Detroit, Mich.
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Swayne-Robinson & Co., 225 Main St., Richmond, Ind.
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Ton-Tex Corporation, 247 Pearl St., Grand Rapids, Mich.
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Tuck Mfg. Co., 74 Ames St., Brockton, Mass.
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Turner, Day and Woolworth Handle Co., 1215 S. 7th St., Louisville, Ky.
Turner Halsey & Co., 40 Worth St., New York.
Tuthill Pump Co., 131 W. 63rd St., Chicago, Ill.
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Tyson Roller Bearing Corp., Oberlin Rd., S. W., Massillon, Ohio.

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Uehling Instrument Co., 473 Getty Ave., Paterson, N. J.
Una Welding, Inc., 1615 Collamer Ave., Cleveland, Ohio.
Union Diesel Engine Co., Kennedy & E. 7th Sts., Oakland, Calif.
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Union Fibre Sales Co., Winona, Minn.
Union Mfg. Co., 296 Main St., New Britain, Conn.
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United American Bosch Corp., 3664 Main St., Springfield, Mass.
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United States Air Compressor Co., 5300 Harvard Ave., Cleveland, Ohio.
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U. S. Expansion Bolt Co., 75 Varick St., New York, N. Y.
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United States Graphite Co., The, 1621 Holland Ave., Saginaw, Mich.
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Upson-Walton Co., The, 1306 W. 11th St., Cleveland, Ohio.

V

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Venn Severin Machine Co., 1317 W. North Ave., Chicago, Ill.
Victor Balata & Textile Belting Co., 53 Park Place, New York, N. Y.
Victor Electric Products, Inc., 730 Reading Road, Cincinnati, Ohio.
Victor Equipment Co., Kimball-Krogh Pump Division, 1010 E. 62nd St., Los Angeles, Calif.
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Vulcan Tool Mfg. Co., 41 Liberty St., Quincy, Mass.
Vulcan Wheels, Inc., Ave. L and Thornton St., Newark, N. J.

W

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Whitney Screw Co., Nashua, N. H.
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Whiton Chuck Co., The, New London, Conn.
Wickwire Brothers, 189 Main St., Cortland, N. Y.
Wickwire Spencer Steel Co., 41 E. 42nd St., New York, N. Y.
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Williams, William E., Valve Corp., 62 Front St., New York, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.
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Wills Products Co., The, 250 W. 57th St., New York, N. Y.
Willson Products, Inc., P. O. Box 901, Reading, Pa.
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Winterhoff Tool & Machine Co., 108 S. Elkhart Ave., Elkhart, Ind.
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Wiping Materials, Inc., 2028 N. Main St., St. Louis, Mo.
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Witte Engine Works, 1664 Oakland Ave., Kansas City, Mo.
Wittek Mfg. Co., 4302 W. 24th St., Chicago.
Wodack Electric Tool Corp., 4621 West Huron St., Chicago, Ill.
Wolverine Motor Works, Inc., Bridgeport, Conn.
Wolverine Tube Co., 1451 Central Ave., Detroit, Mich.
Wood, H. C., Machine Works, 514 Bryant St., San Francisco, Calif.
Wood, R. E., & Son, 315-316 Crozer Bldg., Chester, Pa.
Wood Shovel & Tool Co., Roosevelt & Clarke Ave., Piqua, Ohio.
Wood's, T. B., Sons Co., 5th Ave., Chambersburg, Pa.
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Worcester Taper Pin Co., Worcester, Mass.
Worthington-Gamon Meter Co., Worthington Ave., Harrison, N. J.
Worthington Pump and Machinery Corp., Worthington Ave., Harrison, N. J.
Wright-Austin Co., 316 W. Woodbridge St., Detroit, Mich.
Wright Manufacturing Division of American Chain Co., Princess and Charles Sts., York, Pa.
Wrought Washer Mfg. Co., 2205 South Bay St., Milwaukee, Wis.

Y

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Yale & Towne Mfg. Co., Stamford, Conn.
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Yeomans Brothers Co., 1460 Dayton St., Chicago, Ill.
Yost Manufacturing Co., S. Main St., Meadville, Pa.
Youngstown Sheet and Tube Co., Stambaugh Bldg., Youngstown, Ohio.

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Zip Abrasives Co., Center & Washington, Cleveland, Ohio.

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